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September 10, 2013

VIA ECFS

The Hon. Mignon Clyburn
Chairwoman
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: *In the Matter of Promoting Interoperability in the 700 MHz Commercial Spectrum*, WT Docket No. 12-69

Dear Chairwoman Clyburn:

The interference challenges into the lower 700 MHz A block are significant. The high power broadcasts currently permitted in Channel 51 and in the lower 700 MHz E block create the potential for significant interference problems for LTE deployments in the adjacent 700 MHz A, B and C Blocks. Indeed, Band Class 17 was created in the 3GPP standards-setting process specifically to address these interference issues. AT&T agrees that these challenges can and should be addressed, and that if the interference challenges are adequately addressed AT&T's opportunity for commercial operations in the A Block and with A Block licensees is substantially increased.

To that end, AT&T is committed to supporting lower 700 MHz interoperability for all paired spectrum in the lower 700 MHz band if certain conditions are met. Those conditions, and AT&T's commitments to help achieve lower 700 MHz interoperability, are outlined below and in the commitments attached to this letter.

Harmonization of the Lower 700 MHz E Block:

Under Section 27.50(c)(7) of the Commission's rules, certain lower 700 MHz E block licensees are authorized to operate a fixed or base station at an Effective Radiated Power (ERP) of up to 50 kW within their authorized bandwidth. Further, the antenna height for such stations is limited only to the extent required to satisfy the requirements of Section 27.55(b) of the rules. By contrast, all other licensees in the lower 700 MHz band transmitting a signal with an emission bandwidth greater than 1 megahertz are restricted to an ERP of 1,000 to 2,000 watts/MHz and an antenna height of 305 m above average terrain. These restrictions are currently imposed on AT&T's licenses in both the lower 700 MHz D and E blocks.

Indeed, in the proceeding on AT&T's acquisition of its lower D and E block licenses, several parties, including US Cellular, King Street Wireless and RCA (now CCA) asked the Commission to formally preclude AT&T from operating on its lower D and E Block spectrum at the higher power and antenna height limits in order to mitigate interference and increase lower 700 MHz operational efficiencies. The Commission granted those requests and conditioned the assignment of the licenses on a requirement that AT&T operate on the newly acquired spectrum under the same power limits and antenna height restrictions that apply to the lower 700 MHz A and B block licensees. The Commission also prohibited AT&T from using the licenses for uplink transmissions, while imposing various additional obligations on AT&T's use of its newly acquired spectrum to avoid undue interference into operations of the lower A, B and C block licensees.

The concerns that prompted the Commission to impose restrictions on AT&T's D and E block licenses remain equally valid for the remaining E Block licenses that are permitted to operate at high power limits. AT&T's commitments to support lower 700 MHz interoperability as attached to this letter are therefore premised on final and non-appealable resolution of the E Block interference issues through harmonization of the E Block as detailed in the commitment language.

Deployment of the Multi-Frequency Band Indicator Feature or MFBI:

AT&T's current 700 MHz LTE network, which is expected to provide coverage to nearly 270 million consumers in 400 markets by the end of 2013, currently supports only Band 17 devices. Band 12 support on AT&T's network will require that AT&T deploy a new network technology that will permit simultaneous support of both Band 12 and Band 17 devices. Absent this dual support, millions of pre-existing Band 17 devices currently in use by AT&T's customers would be stranded.

To achieve this, AT&T must develop, implement and deploy throughout its network Multi-Frequency Band Indicator or MFBI capabilities. MFBI will permit AT&T's network to operate simultaneously as both a Band 12 and Band 17 network and to support devices in both bands. This feature was recently standardized, and as with any new significant feature, deployment will require lab regression testing of the new major software release that will contain it, lab testing of the feature and its functionality, and field testing that includes extensive testing with existing Band 17 legacy devices as well as new prototype Band 12 devices. Additionally, testing of both types of devices with various carrier aggregation capabilities operating simultaneously with the MFBI feature will need to be completed.

Once testing is complete, AT&T will need to deploy the MFBI feature throughout its network and will not be able to fully support new Band 12 devices until full deployment is complete. At a minimum, AT&T must complete field testing of the new MFBI feature before it can test any new device with Band 12 capabilities, which in turn will allow for the introduction of Band 12 capable devices.

AT&T's Commitments:

In order to support interoperability in the paired lower 700 MHz band, AT&T makes the commitments specified in the attachment to this letter.

AT&T currently does not own any lower 700 MHz A block licenses. AT&T therefore cannot at this time commit to testing any new Band 12 capable devices on an A block network. AT&T instead anticipates field testing new Band 12 capable devices using an MFBI network operating on AT&T's lower 700 MHz B and C block spectrum. In all events, AT&T reserves the right, in its sole discretion, to plan and manage lower 700 MHz interoperability support in a manner that will not disrupt existing services, strand existing devices or result in unnecessary cost or delay. As detailed in the commitments, AT&T also reserves the right to seek revisions and updates to Band 17 standards to the extent necessary to support legacy Band 17 devices and continuing Band 17 functionality on its network.

Finally, AT&T supports the commitment letter filed by DISH Network Corporation concurrent with this letter and the commitments and requests put forth by DISH in furtherance of the Commission's goals of promoting efficient spectrum use in the lower 700 MHz band and elsewhere.

In accordance with Commission rules, this letter is being filed electronically with your office for inclusion in the public record.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joan Marsh', followed by a horizontal line extending to the right.

Joan Marsh

cc: Comm. Jessica Rosenworcel
Comm. Ajit Pai
Michele Ellison
Louis Peraertz
Ruth Milkman

COMMITMENTS

Deployment of MFBI:

In order to support interoperability in the paired lower 700 MHz band, AT&T commits as follows:

- 1) AT&T commits to moving forward expeditiously with testing the 3GPP MFBI software feature, as outlined above, as soon as it is made available to AT&T by its RAN vendors. AT&T further agrees to fully deploy the new MFBI software feature in its 700 MHz network within 24 months of September 30, 2013. The end of the 24 month period will also commence the beginning of the device roll-out period, as discussed below.
- 2) If AT&T concludes that, despite its best efforts, implementation of the MFBI feature within 24 months as committed to herein will result in significant negative customer impact, AT&T will file a certification, consistent with Commission rules (including but not limited to Sections 1.16, 1.17 and 1.65), so asserting and outlining in specific detail the commercially reasonable steps taken to meet the deadline and the reason for the delay. Any such filing must be made on or before August 31, 2015. With the filing of such a certification, the 24 month deadline for MFBI implementation and the start of the Band 12 capable device roll-out period shall be extended by the period requested in the certification, up to an additional 6 months.
- 3) Once MFBI has been fully implemented by AT&T consistent with paragraph 2, AT&T shall provide LTE roaming to carriers with compatible Band 12 devices, consistent with the FCC's rules on roaming.

The Transition to Band 12 Capable Devices:

In order to support interoperability in the paired lower 700 MHz band, AT&T further commits as follows:

- 4) "Band 12 capable devices" shall mean any device that is capable of supporting 3GPP Band Class 12. At this time, AT&T is exploring various Band 12 implementation approaches with its chipset and OEM partners and AT&T reserves the right to pursue the most efficient solutions available based on evolving network and device capabilities on a technology neutral basis.
- 5) During the first year of the device roll-out period, 50% of all new unique devices that operate on the paired lower 700 MHz bands, as identified by unique SKU numbers, introduced by AT&T into its device portfolio will be Band 12 capable devices. Memory or color finish variations on a single device shall not be considered separate unique SKUs. M-to-M devices shall not be counted as "new unique devices" for purposes of this commitment.

- 6) During the second year of the device roll-out period, 75% of new unique devices that operate on the paired lower 700 MHz bands, as identified by unique SKU numbers, introduced by AT&T into its device portfolio will be Band 12 capable devices. Memory or color finish variations on a single device shall not be considered separate unique SKUs. M-to-M devices shall not be counted as “new unique devices” for purposes of this commitment.
- 7) Commencing at the conclusion of the second year of the device roll-out period, all new unique devices that operate on the paired lower 700 MHz bands introduced by AT&T into its device portfolio will be Band 12 capable devices. In addition, from that time forward, AT&T will agree that its specifications for all new devices that are designed to operate in the paired lower 700 MHz frequencies, including M-to-M devices, will call for Band 12 capability. However, M-to-M devices shall not be counted as “new unique devices” for purposes of this commitment.
- 8) The commitments outlined above apply to all new unique data-capable devices that connect to or provide connectivity on AT&T’s paired lower 700 MHz FDD network. This commitment shall not extend to any devices that are uniquely designed to operate on spectrum bands owned and operated by AT&T that are not in the paired lower 700 MHz bands. AT&T reserves the express right to support devices that do not operate in the paired lower 700 MHz bands.
- 9) To demonstrate progress on these commitments, AT&T shall submit comprehensive written reports and meet with FCC representatives at each of 12 months, 18 months and 24 months from the date of its letter that will provide information on AT&T’s progress toward meeting these commitments. Additionally, AT&T shall provide comprehensive written reports at 28 months, 40 months and 46 months to report on progress during the device roll-out period, and it shall file a certification to the FCC at the end of the device roll-out period to certify final completion of these commitments within 30 days.
- 10) As discussed above, fulfillment of these commitments will require the implementation of new functionality in AT&T’s paired lower 700 MHz network as well as collaboration with AT&T’s chipset and OEM partners and vendors. AT&T will use its best efforts to proceed diligently to complete the activities necessary to fulfill these commitments. However, if at any time, AT&T encounters obstacles beyond its control that threaten its ability to meet these commitments, or undermine the quality of the service it is providing on its network, AT&T reserves the right to so inform the Commission and seek an extension of time or a waiver as appropriate.

- 11) Consistent with these commitments, AT&T anticipates that its focus and advocacy within the 3GPP standards setting process will shift to Band 12 related projects and work streams. More specifically, upon adoption of this commitment, AT&T commits to placing priority within the 3GPP RAN committee on the development of various Band 12 carrier aggregation scenarios. Upon completing implementation of the MFBI feature, AT&T anticipates that its focus on new standards related to the paired lower 700 MHz spectrum will be almost exclusively on Band 12 configurations, features and capabilities. AT&T reserves the right to seek revisions and updates to Band 17 standards to the extent necessary to support legacy Band 17 devices and continuing Band 17 functionality on its network.

- 12) AT&T's commitments to lower 700 MHz interoperability outlined in this letter are premised on final resolution of the E Block interference issues, which requires the Commission to adopt an Order requiring that all E block licensees transmitting a signal with an emission bandwidth greater than 1 megahertz are restricted to an ERP of 1,000 to 2,000 watts/MHz and an antenna height of 305 m above average terrain. AT&T anticipates that the FCC will adopt such an Order no later than December 31, 2013. If such an Order is not adopted by the FCC, or if it is adopted but subject to appellate review, AT&T reserves the right to declare these commitments null and void.