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Federal Communications Commission
Office of the Secretary

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
AT&T Mobility Spectrum LLC; BellSouth)	
Mobile Data, Inc.; New Cingular Wireless)	WT Docket No. 16-___
PCS, LLC; and SBC Telecom, Inc.)	
)	File Nos. 0007239621, et al.
Petition for Limited Waiver of Interim)	
Performance Requirement for 2.3 GHz)	
WCS C and D Block Licenses)	

**SUPPLEMENT TO PETITION FOR LIMITED WAIVER OF
INTERIM PERFORMANCE REQUIREMENT FOR WCS C AND D BLOCK LICENSES**

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To: The Commission

**SUPPLEMENT TO PETITION FOR LIMITED WAIVER OF INTERIM
PERFORMANCE REQUIREMENT FOR WCS C AND D BLOCK LICENSES**

AT&T Mobility Spectrum LLC; BellSouth Mobile Data, Inc.; New Cingular Wireless PCS, LLC; and SBC Telecom, Inc. (collectively, "AT&T") hereby supplement their Petition for Limited Waiver of Interim Performance Requirement for WCS C and D Block Licenses ("Petition"), filed on March 29, 2016.¹ In the Petition, AT&T requested that the Commission waive the interim performance requirement for the 2.3 GHz Wireless Communications Service ("WCS") C and D Blocks in Section 27.14(p)(1)-(2) of its rules.² Since submitting the Petition, AT&T and Nokia have continued to evaluate the prospects for the innovative C and D Block smart grid solution they soon will offer. With an improved forecast of the business's trajectory

¹ At the direction of the Commission staff, on April 21, 2016, AT&T withdrew the modification applications to which the Petition originally was attached and filed requests for extension of time to which the Petition was attached.

² 47 C.F.R. § 27.14(p)(1)-(2).

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over the coming years, AT&T now can propose a comprehensive redefinition of the performance requirements for this use of the spectrum. Specifically, AT&T proposes:

- The September 13, 2019 final performance requirement deadline should be extended until September 13, 2021, and the requirement should be set at 30 links per million persons.
- The March 13, 2017 interim performance requirement should be replaced with a semiannual report on AT&T's progress—in particular, the number of links deployed in each REAG as of each June 30 or December 31 (as applicable)—starting on January 31, 2018.

Modified as proposed, the performance requirement will continue to “ensure the efficient use of spectrum and the expeditious provision of service to the public.”³ Waiving and revising the performance requirements as requested in the Petition and this Supplement, thus, will serve the public interest.

I. Proposed Modifications to the Performance Requirements

In revising the WCS rules in 2012, the Commission recognized that licensees might resort to “hybrid or non-traditional operations that do not fit precisely in one category” of the performance requirements and encouraged licensees to “seek guidance” on the appropriate benchmarks.⁴ As explained in the Petition and below, the performance requirements currently set forth in the rules are not a good fit for the deployment of a smart grid solution over the WCS C and D Blocks. AT&T, therefore, requests the Commission to tailor the performance requirements' timing and metrics to this new offering.

³ Petition at 21 (quoting *Amendment of Part 27 of the Commission's Rules To Govern the Operation of Wireless Communications Services in the 2.3 GHz Band*, Order on Reconsideration, 27 FCC Rcd 13,651, 13,706 ¶ 135 (2012) (“2012 Order on Reconsideration”)).

⁴ 2012 Order on Reconsideration, 27 FCC Rcd at 13,702 ¶ 126.

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Since filing the Petition, AT&T and Nokia have continued to market their smart grid solution aggressively. As detailed in the Petition, prospective customers greeted the unveiling of the solution in February with widespread enthusiasm.⁵ AT&T and Nokia now have met individually with 20 utilities (not counting the ones that only attended the DistribuTECH[®] breakfast at which we introduced the solution). And AT&T and Nokia recently signed a memorandum of understanding with a mid-sized, investor-owned utility serving over half a million people to develop a business case for the utility to invest in the solution.⁶

Despite these efforts, it has become clear that not only will it “not be possible to deploy this solution broadly enough to meet the interim buildout deadline of March 13, 2017,”⁷ but it is unlikely AT&T will meet the September 13, 2019 final buildout deadline either. In contrast to most radio services, AT&T is not building a network to provide service to its own customers. Rather, AT&T will lease the C and D Block spectrum to utilities to design and build their own networks (with support from AT&T and Nokia as desired or as necessary to ensure interference coordination and mitigation).⁸ The pace of deployment, therefore, will be dictated largely by a decentralized set of utilities. Regulated utilities, however, are inherently slow to commit capital—especially to innovative products. And, once they do commit, their deployments will require extensive coordination and technical work to ensure that Sirius XM and AFTRCC operations are protected.⁹ Notwithstanding these realities, by September 2019, AT&T and Nokia expect to have contracted for commercial deployments with at least **[BEGIN AT&T-NOKIA**

⁵ See Petition at 17.

⁶ See also *id.* at 17-18 (describing AT&T-Nokia marketing efforts prior to the Petition’s filing).

⁷ *Id.* at i.

⁸ See *id.* at 13 & n.39.

⁹ See generally *id.* at 4-9.

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[HIGHLY CONFIDENTIAL INFORMATION] [END AT&T-NOKIA HIGHLY CONFIDENTIAL INFORMATION] Tier One utilities and [BEGIN AT&T-NOKIA HIGHLY CONFIDENTIAL INFORMATION] [END AT&T-NOKIA HIGHLY CONFIDENTIAL INFORMATION] smaller utilities.¹⁰ These developments will represent significant progress in deploying an innovative, brand new service. Nevertheless, they probably will not be sufficiently extensive for the Commission to conclude that AT&T has satisfied the current performance requirement for each of its C and D Block licenses. AT&T accordingly requests the Commission to extend the final buildout deadline by two years, to September 13, 2021.

AT&T also asks that the Commission adapt the performance requirement metrics to fit the nature of the smart grid deployments that AT&T anticipates:

- The performance requirement should be set at 30 links per million persons in the Regional Economic Area Grouping (“REAG”) covered in whole or in part by the license, based on 2010 Census data. (Smaller license areas created by partitioning should be disregarded for purposes of evaluating AT&T’s satisfaction of this performance requirement. For example, the performance requirement for WQND998 (the C Block license covering San Diego County, California) would be measured based on all C Block links deployed in REA006 – West.) For purposes of calculating an REAG’s population to determine the required number of links, the population of any Census Block, the center of which is 45 kilometers or closer to any AMT receiver facility for which coordination is required under Section 27.73(a) of the rules,¹¹ should be disregarded.
- A link should be defined as each transmission path between a base station and a field device such as individual household meters or devices that aggregate meter readings¹² without regard to whether it satisfies the minimum payload requirement in Section

¹⁰ *Id.* at 20.

¹¹ 47 C.F.R. § 27.73(a).

¹² *See* Petition at 13-18 (describing the architecture of the proposed smart grid solution). Technically, under the rules, what we refer to as “base stations” are fixed stations and not base stations. *See* 47 C.F.R. § 27.4.

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27.14(p)(4) of the rules.¹³ As each base station can serve multiple field devices, a single base station correspondingly should be counted towards multiple links. The same link should be counted for both the C Block (reflecting the transmission from the field device to the base station) and for the D Block (reflecting the transmission from the base station to the field device).

Additionally, in lieu of the March 13, 2017 interim performance requirement and in light of the requested extension of the final performance requirement deadline, AT&T proposes to submit a semiannual report on AT&T's progress—in particular, the number of links deployed in each REAG as of each June 30 or December 31 (as applicable). The reports would be due one month following the close of each semiannual period (*i.e.*, on July 31 or January 31 unless adjusted pursuant to Section 1.4 of the Commission's rules).¹⁴ The first such report would be due on January 31, 2018.

II. Adapting the Performance Requirements as Proposed Will Advance the Public Interest

These proposed adaptations of the performance requirements not only fit the anticipated deployments of the smart grid solution, they fit the performance requirements' underlying purposes. The Commission adopted the performance requirements “to ensure the efficient use of spectrum and the expeditious provision of service to the public.”¹⁵ Among the final buildout benchmarks selected to achieve these purposes was 30 point-to-point links per million persons for point-to-point fixed systems.¹⁶ Although the AT&T-Nokia smart grid solution may not be a classic point-to-point fixed system,¹⁷ at a minimum, it shares enough of the characteristics of

¹³ 47 C.F.R. § 27.14(p)(4).

¹⁴ *Id.* § 1.4.

¹⁵ 2012 Order on Reconsideration, 27 FCC Rcd at 13,706 ¶ 135.

¹⁶ 47 C.F.R. § 27.14(p)(2).

¹⁷ The proposed smart grid, as currently conceived, accurately can be characterized as a point-to-point service; however, certain variants of the solution might be harder to classify in this way.

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such systems that 30 links per million persons is an appropriate final buildout benchmark.

Signals will be transmitted from one fixed point (the base station) to another (the field device) or vice versa—much like a 39 GHz backhaul network, for example.¹⁸ Moreover, as with a classic point-to-point fixed system, the information carried on each link will be unique (at least in the uplink direction).¹⁹ Given these similarities, the Commission should conclude that 30 links per million persons represents intensive use of the spectrum by a smart grid solution, just as it does for a classic point-to-point fixed system.

Measuring the deployment on an REAG basis, not (to the extent they differ) a license area-by-license area basis, similarly is in the public interest. The Commission originally licensed the C and D Blocks by REAG. While certain C and D Block licenses were partitioned years ago through historical accidents that no longer have any relevance, AT&T now holds all the C and D Block spectrum in each of the REAGs that were partitioned. Had the licenses not been partitioned, the rules would require the buildout to be measured in each REAG. Disregarding AT&T's status as the sole licensee in each of these REAGs and requiring AT&T to satisfy performance requirements in each partition would serve no purpose.²⁰ However, it would

¹⁸ See *Amendment of the Commission's Rules Regarding the 37-38.6 GHz and 38.6-40.0 GHz Bands*, Report and Order and Second Notice of Proposed Rule Making, 12 FCC Rcd 18,600, 18,625 ¶ 47 (1997) (providing a substantial service “safe harbor” of “four links per million population within a service area”).

¹⁹ In contrast, a classic point-to-*multipoint* system (like a wireless cable service) predominantly carries the same information from the transmitting hub to each of its receivers.

²⁰ By licensing the spectrum by REAG, the Commission determined that measuring deployment on an REAG basis will lead to sufficiently broad coverage across the country to satisfy the public interest. Similarly, when adopting previous performance requirements for the C and D Blocks, the Commission explicitly rejected specific construction requirements for submarkets within REAGs as “unnecessary...to ensure widespread system deployments in the public interest.”

Amendment of Part 27 of the Commission's Rules To Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, Report and Order and Second Report and Order,

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complicate AT&T and Nokia's efforts to launch their smart grid business, forcing them to devote marketing and other resources to particular metropolitan areas or even an individual county to avoid losing a license. In short, it likely would hinder, rather than enhance, overall deployment.

Measuring performance in each partition also would raise the odds the Commission once again will be forced to confront the many complex interference and other problems that plagued the 2.3 GHz band for many years. Failure to meet the performance requirements in a partition would result in the license being returned to the Commission.²¹ The Commission then would have to determine how to grant the license to a new holder. As discussed in the Petition, introducing a new licensee would complicate considerably the coordination efforts among existing users of the 2.3 GHz band and would risk a recurrence of the uncertainty and controversy the Commission thought it had removed in 2012.²² For all these reasons, returning to the Commission's original REAG-based plan will best promote efficient use of spectrum and expansive deployment and will protect against unnecessary expenditure of Commission resources.

Furthermore, excluding populations within 45 kilometers of an AMT receiver facility is just another expression of a principle that the Commission already follows in its performance requirement for mobile and point-to-multipoint systems.²³ Adequately protecting AMT facilities is—quite simply—challenging and time-consuming. Total deployment across an REAG is likely

Footnote continued from previous page
25 FCC Rcd 11,710, 11,794 ¶ 208 (2010) (“2010 Report and Order and Second Report and Order”).

²¹ 47 C.F.R. §§ 1.946(c), 27.14(p)(8).

²² Petition at 21-22.

²³ See 47 C.F.R. § 27.14(p)(1) (adjusting coverage requirements based on population within AMT coordination zones).

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to be advanced by allowing AT&T and Nokia to bypass AMT coordination zones without being penalized.

Applying the minimum payload requirement for point-to-point fixed links to the AT&T-Nokia smart grid solution also would be counterproductive. Given the myriad applications for which smart grid field devices may be used, we cannot say every link will satisfy the minimum payload requirement. Nevertheless, with the performance requirement outlined above, the smart grid solution inherently will “provide robust services to the American public,” avoid “the construction of skeletal systems[,] and fulfill Congress’ mandate...[to] ‘prevent stockpiling or warehousing of spectrum...and to promote investment in and rapid deployment of new technologies and services.’”²⁴ In this case, the minimum payload requirement is not necessary to achieve the objectives it was designed to serve; indeed, it is likely to deter, rather than promote, deployment.

Finally, the proposed reporting requirement will give the Commission confidence throughout the buildout period that AT&T and Nokia remain on track to satisfy the performance requirements. It also will give the Commission (and the companies) the opportunity to address any issues as they arise, instead of after the fact when evaluating a construction notification.

The proposed adaptations of the performance requirements fit the novel nature of the smart grid solution. They will ensure robust deployment across each REAG and the nation as a whole. At the same time, they will avoid particular elements of the existing performance requirements that would be more likely to hamper than to foster expansive buildout. And they will enable the Commission to monitor deployment as it unfolds, to confirm the deployment is

²⁴ 2010 Report and Order and Second Report and Order, 25 FCC Rcd at 11,794 ¶ 209 (explaining the reasons for a minimum payload requirement).

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meeting regulatory imperatives as well as business ones. All told, the proposed adaptations are in the public interest and meet the standard for granting the waiver requested in the Petition and above.²⁵

III. Conclusion

For the reasons set forth in the Petition and above, AT&T urges the Commission to grant its limited waiver request.

Respectfully submitted,

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²⁵ See Petition at 20-21 (citing 47 C.F.R. §§ 1.3, 1.925(b)(3)(i)-(ii) and setting forth the waiver standard).