

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 PCS, LLC, and) WT Docket No. 16-181
SBC Telecom, Inc., Petition for Limited Waiver of)
Interim Performance Requirement for 2.3 GHz)
WCS C and D Block Licenses)

ORDER

Adopted: January 18, 2017

Released: January 18, 2017

By the Chief, Mobility Division, Wireless Telecommunications Bureau:

1. Introduction. In this Order, the Mobility Division (Division) of the Wireless Telecommunications Bureau (Bureau) addresses the petition for waiver of section 27.14(p)(1)-(2)1 of the Commission’s rules and subsequent supplement (Petition and Supplement, respectively)2 filed by AT&T Mobility Spectrum LLC, BellSouth Mobile Data, Inc., New Cingular Wireless PCS, LLC, and SBC Telecom Inc. (collectively, AT&T) related to performance requirements and construction deadlines for its 2.3 GHz Wireless Communications Service (WCS) C and D Block licenses. For the reasons stated below, we find it in the public interest to provide relief as described herein, with certain specified conditions. We conclude that doing so will facilitate AT&T’s rapid deployment of a beneficial service in a manner that makes efficient use of previously underutilized WCS spectrum, while not causing harmful interference to adjacent Satellite Digital Audio Radio Service (SDARS) operations.

I. BACKGROUND

2. WCS and SDARS. The WCS and SDARS occupy 55 megahertz of spectrum from 2305 MHz to 2360 MHz (2.3 GHz Band). The center portion of the 2.3 GHz Band is divided equally between two separate but co-owned SDARS networks, Sirius and XM.3 WCS occupies the frequency bands on either side of the SDARS allocation, from 2305-2320 MHz and 2345-2360 MHz, consisting of two ten-megahertz paired blocks (the A and B Blocks) and two unpaired five-megahertz blocks (the C and D Blocks).4 The C and D Blocks are immediately adjacent to the SDARS spectrum.5 The market

1 47 CFR § 27.14(p)(1)-(2).

2 Petition of AT&T for Limited Waiver of Interim Performance Requirement for WCS C and D Block Licenses, WT Docket No. 16-181 (filed March 29, 2016) (Petition); Supplement to Petition of AT&T for Limited Waiver of Interim Performance Requirement for WCS C and D Block Licenses, WT Docket No. 16-181 (filed May 18, 2016) (Supplement).

3 In August 2008, Sirius and XM merged to form a single company—Sirius XM Radio, Inc. (Sirius XM)—but the merged entity continues to operate the Sirius and XM systems as separate networks and there is still a separate license for each system. See Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings, Inc., Transferor, to Sirius Satellite Radio Inc., Transferee, Memorandum Opinion and Order and Report and Order, 23 FCC Rcd 12348 (2008).

4 The Commission established the WCS in February 1997. See Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service, Report and Order, 12 FCC Rcd 10785 (1997). The 2305-2320 MHz (continued....)

area for WCS C and D block licenses is Regional Economic Area Groups (“REAGs”).⁶ There are 12 REAGs, and AT&T holds all WCS C and D Block licenses in the six REAGs covering the continental United States.⁷

3. As the Commission has previously explained, the 2.3 GHz Band faces unique interference challenges arising from the fact that two very different services—one chiefly satellite-based and the other terrestrial-based—are allocated to adjacent frequency bands with no guard bands separating the two.⁸ In 2010, in an effort to usher broadband deployment in the WCS band, the Commission modified the technical parameters governing the operation of WCS devices and provided WCS licensees with the ability to offer mobile broadband services, while limiting the potential for harmful interference.⁹ The revised WCS service rules aimed to allow the WCS to co-exist with adjacent band SDARS, without SDARS experiencing harmful interference.¹⁰

4. At the same time that it modified the WCS technical parameters, the Commission also replaced the WCS substantial service performance requirement with enhanced performance benchmarks to ensure meaningful, wide-spread deployment of new broadband services in the WCS spectrum,¹¹ creating “much needed certainty regarding . . . construction obligations.”¹² The Commission revised the applicable performance requirements from substantial service to population benchmarks or fixed links. Specifically, for mobile and point-to-multipoint services, the Commission required a licensee to provide reliable signal coverage to 40 percent of a license area’s population by March 4, 2014 and 75 percent of a

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and 2345-2360 MHz bands are assigned to the WCS under the primary fixed, mobile, and radiolocation service allocations in the U.S. Table. See 47 CFR §§ 2.106, 27.1(b)(1), 27.2(a), (c), 27.5(a)(1)-(2). The WCS is separated into paired blocks (A and B) that the Commission allocated on a regional basis, and unpaired blocks (C and D) that have been allocated over very wide service areas. 47 CFR § 27.5(a)(1)-(2). The Commission auctioned 128 WCS licenses in April 1997. See *WCS Auction Closes, Winning Bidders in the Auction of 128 Wireless Communications Service Licenses*, Public Notice, 12 FCC Rcd 21653 (WTB Apr. 28, 1997). In July 1997, the Commission issued licenses to the WCS auction winners. See *FCC Announces the Grant of Wireless Communications Service (“WCS”) Licenses, Balance of Winning Bids are Due by August 4, 1997*, Public Notice, 13 FCC Rcd 4782 (WTB Jul. 21, 1997).

⁵ The WCS spectrum also neighbors Aeronautical Mobile Telemetry (AMT) spectrum, which occupies 2360-2390 MHz. As AT&T holds the D Block WCS licenses adjacent to the AMT spectrum, AT&T has to coordinate with both SDARS and AMT with respect to its WCS deployments.

⁶ See 47 CFR § 27.5(a)(2).

⁷ AT&T also holds WCS licenses in Alaska, Hawaii, and Puerto Rico and the U.S. Virgin Islands. AT&T is not the licensee for markets covering the Gulf of Mexico, Guam and the Northern Mariana Islands, or American Samoa.

⁸ *Amendment of Part 27 of the Commission’s Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band et al.*, WT Docket Nos. 07-293 et al., Report and Order, 25 FCC Rcd 11710, 11714, para. 5 (2010) (*2010 Report and Order*).

⁹ See generally *id.*

¹⁰ See *id.* at 11723, para. 28.

¹¹ See *id.* at 11789, para. 191. Originally, the Commission’s rules required WCS licensees to make a showing of substantial service in their license areas by the end of their initial 10-year license term, which commenced on July 21, 1997. However, in December 2006, the Bureau granted a three-year extension of the construction deadline until July 2010. See *id.* at 11718, para. 15 (citing *Consolidated Request of the WCS Coalition for Limited Waiver of Construction Deadline for 132 WCS Licenses*, Order, 21 FCC Rcd 14134 (2006)).

¹² *Id.* at 11791, para. 195.

license area's population by September 1, 2016.¹³ For point-to-point fixed services, the Commission required construction and operation of 15 point-to-point links per million persons in a license area by March 4, 2014, and 30 point-to-point links per million persons by September 1, 2016, together with a minimum payload capacity to ensure that the spectrum is used intensively.¹⁴ The Commission also determined that WCS licenses would automatically terminate if a licensee failed to meet a performance benchmark.¹⁵ The Commission stressed that the underlying goal of the stringent performance requirements was “to facilitate rapid and significant service deployment in a band that has been underutilized since WCS licenses were first auctioned in 1997.”¹⁶

5. In its *2012 Order on Reconsideration*, the Commission made further revisions to the technical rules for operation in the 2.3 GHz Band, and, in light of this, extended the interim and final performance deadlines for WCS licenses until March 13, 2017 and September 13, 2019, respectively.¹⁷ At that time, mobile use was prohibited in the C and D Blocks, due to their immediate adjacency to SDARS.¹⁸ The Commission reiterated that relying on quantitative performance benchmarks would ensure that licensees will provide meaningful service in the near-term and prevent licensees from “cherry picking” areas for service rather than meeting the benchmarks specified in their license requirements.¹⁹ However, the Commission also recognized that entities may need guidance as to the specific performance requirements that would be applied to potential operations in the more restrictive C and D Blocks that might not fall within the traditional mobile, point-to-multipoint, or point-to-point fixed models.²⁰ Specifically, the Commission noted that there may be:

. . . hybrid or non-traditional operations that do not fit precisely into one category; for example, there may be WCS point-to-multipoint systems that could be viewed as functionally consistent with a WCS point-to-point RF network, e.g., certain smart grid links to monitoring stations, maintenance instrumentation, automatic metering, collection points, and video surveillance. However, given the wide range of deployments and applications possible, we find that WCS licensees should seek guidance from the [Bureau] on a case-by-case basis in determining whether their service is permissible within the C and D Blocks, and which benchmarks apply.²¹

¹³ 47 CFR § 27.14(p)(1); *2010 Report and Order*, 25 FCC Rcd at 11791, para. 197; *Amendment of Part 27 of the Commission's Rule to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band et al.*, WT Docket Nos. 07-293 et al., 27 FCC Rcd 13651, 13696, para. 111 n.245 (2012) (*2012 Order on Reconsideration*).

¹⁴ 47 CFR § 27.14(p)(2), (4); *2010 Report and Order*, 25 FCC Rcd at 11793, para. 207 & 11794, para. 210; *2012 Order on Reconsideration*, 27 FCC Rcd at 13696, para. 111 n.246. The Commission in 2012 explained that, because of its action to prohibit mobile operations in the C and D Blocks, the 40 and 75 percent population coverage benchmarks would only be applicable to point-to-multipoint systems; however, the Commission maintained that quantitative benchmarks—rather than substantial service—were the appropriate standards for all operations in the C and D Blocks. See *2012 Order on Reconsideration*, 27 FCC Rcd at 13702, para. 125.

¹⁵ 47 CFR § 27.14(p)(8); *2010 Report and Order*, 25 FCC Rcd at 11796, para. 214.

¹⁶ *2012 Order on Reconsideration*, 27 FCC Rcd at 13699, para. 119.

¹⁷ *Id.* at 13700-01, para. 121.

¹⁸ See *id.* at 13688, para. 88; see also *id.* at 13702, para. 125.

¹⁹ *Id.* at 13702, para. 124.

²⁰ *Id.* at 13702, para. 126.

²¹ *Id.*

6. *AT&T's Request for Relief.* As mentioned above, AT&T holds all continental U.S. licenses for WCS C and D Block spectrum. AT&T argues that the technical restrictions needed to protect adjacent SDARS and AMT users severely constrain its productive deployment of WCS spectrum in the C and D Blocks.²² It characterizes these engineering restrictions as “exceptionally stringent,”²³ noting that mobile and portable uses are prohibited, out-of-band emissions must be tightly curtailed, and ground signal levels cannot exceed strict limits.²⁴ It also notes that it has engaged in “extensive and time-consuming” coordination with Sirius XM.²⁵

7. AT&T argues that, despite these challenges, it has continued to look for a productive use for the C and D Block spectrum and explored numerous options over the past several years, most of which were thwarted by the need to protect Sirius XM and AMT users.²⁶ In mid-2015, AT&T began working with Nokia to develop a smart grid solution, offering utilities what it describes as private, secure, reliable, and high-capacity LTE networks for smart grid technology.²⁷ AT&T argues it has been aggressively pursuing the smart grid solution and meeting with interested utilities, with plans to deploy trial systems in 2017 for utilities in at least four REAGs.²⁸ Subsequent to filing its Petition, AT&T entered into a coordination agreement with Sirius XM with respect to the smart grid operations.²⁹ AT&T also stresses that no change in the technical rules governing the C and D Blocks is needed for deployment of the smart grid solution.³⁰

8. Notwithstanding its progress, AT&T argues that it cannot deploy the smart grid network—or any other non-interfering use of the WCS C and D Blocks—broadly enough to meet the interim population benchmark of 40 percent coverage by the March 13, 2017 deadline.³¹ Missing this deadline under the rules would automatically terminate all of AT&T's WCS C and D block licenses, resulting in the spectrum being returned to the Commission's inventory, which AT&T argues will reintroduce the uncertainty and controversy among adjacent users that the Commission aimed to resolve in 2010 and 2012.³² In light of this, AT&T initially asked the Commission only to waive the interim

²² Petition at 4-5.

²³ *Id.* at 4.

²⁴ *Id.* at 2, 4-5.

²⁵ *Id.* at 5; *see also* Sirius XM Supplemental Comments.

²⁶ Petition at 2, 7. AT&T notes that it has explored, among other alternatives, fixed wireless local loop service; low-power network overlay used for communication among Internet of Things-type devices; supplemental downlink; air-to-ground service; wireless backhaul; and mobile broadband as part of AT&T's CMRS network. *Id.* at 7.

²⁷ *Id.* at 2, 9. AT&T plans to lease the C and D Blocks to utilities across the country for use with Nokia LTE equipment. *Id.* at 9.

²⁸ *Id.* at 17-18. AT&T and Nokia have changed base station antennas to minimize in-band ground-level power nearby, completed filter analysis and design for stations and CPE in order to meet out-of-band emission requirements, and taken other necessary steps related to the design of their network and equipment. *Id.* at 16.

²⁹ *See* Sirius XM Supplemental Comments at 2 (“Sirius XM and AT&T have now executed a coordination agreement requiring, among other things, site-by-site testing of WCS transmitter locations before service is provided to ensure those transmitters will not cause interference to SDARS and establishing clear, enforceable mechanisms for interference resolution in the event that interference is predicted to occur or is occurring.”).

³⁰ Petition at 3.

³¹ *Id.*

³² *Id.*

performance requirement for the C and D Blocks, or replace it with a status report.³³ In its Supplement, AT&T also asks that the Commission modify the metric used to evaluate final performance and extend the deadline for final performance by two years until September 13, 2021.³⁴ Specifically, arguing that its smart grid is a “hybrid or non-traditional operation[] that do[es] not fit precisely in one category”³⁵ of performance requirements (i.e., point-to-multi-point or point-to-point fixed), and citing the Commission’s previous recognition that licensees of such operations should seek guidance on appropriate benchmarks, AT&T asks that the Commission tailor the performance requirements’ timing and metrics to its smart grid offering.³⁶

9. *Comments and Replies.* Nine parties filed comments and reply comments in support of AT&T’s Petition and Supplement.³⁷ This includes Sirius XM, which initially expressed some concerns but, following discussions and a coordination agreement with AT&T, now fully supports the request.³⁸ Sirius XM argues that both the public welfare and SDARS will be best served by AT&T’s plan, and expressed concern that, if the Commission allows AT&T’s WCS C and D Block licenses to terminate, progress in the 2.3 GHz Band would be further stagnated and result in significant uncertainty.³⁹ Other commenters echo this sentiment, agreeing that, (i) in light of the strict technical rules and sensitivity of neighboring operations, AT&T would not be able to effectively use the WCS C and D Block spectrum in a noninterfering manner absent a waiver;⁴⁰ (ii) AT&T is best situated to understand the requirements of the band and has already spent considerable time and resources to develop a relationship with Sirius XM and its other neighbors;⁴¹ and (iii) termination of AT&T’s C and D Block licenses would frustrate significantly any potential service deployment in that spectrum.⁴² No commenters oppose the Petition and Supplement.⁴³

³³ *Id.* at 1; 3-4.

³⁴ Supplement at 2-5.

³⁵ *Id.* at 2 (quoting *2012 Order on Reconsideration*, 27 FCC Rcd at 13702, para. 126); *id.* at 5-6 (arguing that, while not a classic point-to-point fixed system, the smart grid solution shares certain characteristics of a point-to-point fixed system); *see also* Utilities Technology Council (UTC) Comments at 9 (agreeing with AT&T’s characterization).

³⁶ Supplement at 2.

³⁷ The Bureau released a Public Notice inviting comment on AT&T’s Petition and Supplement. *See Wireless Telecommunications Bureau Seeks Comment Regarding Request for Relief of Certain WCS Construction Requirements*, Public Notice, 31 FCC Rcd 5442 (WTB June 2, 2016). *See also* 47 CFR § 1.925(c)(i). Parties filing comments and reply comments were: Public Knowledge, Sirius XM Radio, Inc., Aerospace and Flight Testing Radio Coordinating Council (AFTRCC), Tech Knowledge, Mobile Future, Richard Bennet, Jon Thompson, Nokia, and UTC. *See* WT Docket No. 16-181.

³⁸ *Compare* Sirius XM Supplemental Comments at 1, *with* Sirius XM Comments at 1-2.

³⁹ Sirius XM Supplemental Comments at 1-3.

⁴⁰ *See, e.g.*, UTC Comments at 1; Tech Knowledge Comments at 1-2.

⁴¹ *See, e.g.*, AFTRCC Comments at 1; Tech Knowledge Comments at 3. AFTRCC, representing AMT interests that are also neighbors to WCS spectrum, stresses that AFTRCC has “invested much time and effort in helping AT&T develop an understanding of AMT protection requirements” and that “[t]o start over at this point with an entirely new party would represent an inordinate waste and burden for AFTRCC and its Member Companies, and would needlessly delay productive use of the WCS C and D Blocks.” AFTRCC Comments at 1, 2.

⁴² *See, e.g.*, AFTRCC Comments at 1-2; Tech Knowledge Comments at 3. Commenters also argue that bringing an outdated electric grid into the 21st century with dedicated, licensed spectrum for smart grid technology is in the (continued....)

II. DISCUSSION

10. Section 1.925 of the Commission’s rules states in pertinent part that the Commission may grant a waiver when either “[t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and . . . grant of the requested waiver would be in the public interest,” or “[i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.”⁴⁴ We note that the waiver standard must be applied in consideration of Section 309(j) of the Communications Act, which states that the Commission shall include performance requirements to ensure prompt delivery of services, to prevent the stockpiling and warehousing of spectrum by licensees, and to promote investment and deployment of new technologies and services.⁴⁵

11. We find that the unique context surrounding AT&T’s WCS C and D Block licenses, as well as the difficulty of applying conventional population- or fixed link-based construction metrics to the proposed hybrid nature of AT&T’s smart grid operation, justifies relief from our rules. In providing relief, we permit AT&T to offer a service consistent with WCS rules that makes productive use of spectrum that has remained underutilized for nearly 20 years, yet minimizes the risk of harmful interference to neighboring operations. In revising the performance requirements for this service in 2012, the Commission expected that the construction deadlines adopted would provide licensees with timeframes sufficient to develop and deploy network facilities, despite the significant technical limitations adopted for the C and D Blocks and the close coordination required with Sirius XM and AMT users.⁴⁶ However, difficulties experienced by AT&T to develop, fully coordinate, and deploy a network that will not adversely impact entities operating in adjacent spectrum within the required construction timeframe were greater than that anticipated. We conclude that the unexpected complexities encountered by AT&T in seeking a non-interfering solution rise to the level of “unique or unusual factual circumstances” under which application of section 27.14(p) of the Commission’s rules would be “unduly burdensome [and] contrary to the public interest.”⁴⁷ We therefore waive the interim performance requirement in section 27.14(p)(1) of the Commission’s rules with respect to AT&T’s C and D Block licenses. We also find that the unusual circumstances presented in this case warrant extension of AT&T’s final construction deadline from September 13, 2019 to September 13, 2021 for its C and D Block licenses. In addition, we modify the metric used to evaluate final performance for AT&T’s C and D Block licenses to make it more applicable to deployment of AT&T’s smart grid offering, which will likely have elements of both a point-to-multipoint and point-to-point fixed system. As discussed in further detail below, our modified final performance metric aims to translate the population performance requirement applicable to point-to-

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public interest and is the most productive and efficient use of the C and D Blocks. *See, e.g.*, Mobile Future Comments at 2-4; Nokia Comments at 2-6; Tech Knowledge Comments at 3; UTC Comments at 8.

⁴³ Public Knowledge supported AT&T’s request, but with conditions. *See* Public Knowledge Comments at 1. We note that Public Knowledge’s request that the Commission permit unlicensed use in the C and D Blocks is beyond the scope of this proceeding.

⁴⁴ 47 CFR § 1.925(b)(3)(i)-(ii). Alternatively, section 1.946(e) of the Commission’s rules allows for extension of time to meet construction requirements where a licensee demonstrates that failure to meet the construction deadline is due to circumstances beyond its control, while specifying a number of reasons that would not justify an extension, such as a licensee’s failure to obtain financing, antenna sites, or equipment. 47 CFR § 1.946(e)(1)-(5).

⁴⁵ *See* 47 U.S.C. § 309(j).

⁴⁶ *See 2012 Order on Reconsideration*, 27 FCC Rcd at 13701, paras. 120-121. The Commission believed that the performance deadlines adopted would further the goal of facilitating rapid and significant service deployment in the WCS band yet provide licensees with reasonable time to construct. *Id.*

⁴⁷ 47 CFR § 1.925(b)(3)(ii).

multipoint systems—75 percent coverage in the license area—to better accommodate this non-traditional system, while still ensuring significant build in each license area. The relief discussed herein is also subject to AT&T meeting certain conditions, as detailed below.

12. *Waiver of Interim Performance Requirements.* As discussed above, we find that the unexpected complexities posed by the hybrid nature of AT&T’s proposed network, the significant technical limitations placed on the C and D Block licenses, and the close coordination required with SDARS and AMT users create “unique or unusual factual circumstances” under which application of the Commission’s rules would be “unduly burdensome,” and therefore find that the public interest is served by waiving the March 13, 2017 interim performance deadline in section 27.14(p) of the Commission’s rules, so long as AT&T complies with the conditions described in this order. Doing so will allow AT&T to continue to engage in the activities discussed in its petition: adapting and lab testing equipment; meeting with utility customers and entering into lease or other business agreements with utilities; and deploying trial systems (which AT&T describes as a systems with the “full range of capabilities and functionality” as a full deployment but smaller in scale).⁴⁸ Waiver of the interim performance requirements is conditioned on AT&T meeting various requirements—including demonstrating its progress on equipment development and testing and trial/initial deployments—discussed below.

13. *Extension of Final Performance Deadline.* In light of the “unique [and] unusual factual circumstances” in this case, discussed above, we also find it in the public interest to grant AT&T an additional two years to meet a modified version of the final performance requirements in section 27.14(p)(1)-(2) of the Commission’s rules. Additional time is warranted as the unique factors here—in particular, the greater than anticipated difficulties experienced by AT&T—have prevented AT&T from deploying this or any other non-interfering solution in a manner that will satisfy performance requirements on or before the September 2019 final performance deadline.

14. *Modified Final Performance Metric.* Because AT&T’s “hybrid” smart grid network will have elements of both point-to-multipoint as well as point-to-point fixed systems, measuring AT&T’s construction against traditional point-to-multipoint or point-to-point networks is not suitable in this situation. Instead we believe that the modified population-based metric described below will provide an appropriate measure of AT&T’s construction. We therefore find it in the public interest to condition our waiver and extension of the construction deadline on AT&T meeting this modified version of the final performance benchmark, which will ensure meaningful deployment nationwide while still being rooted in the WCS population-based metric.⁴⁹

15. Specifically, in order to ensure a satisfactory level of construction for each of its markets while accommodating AT&T’s anticipated deployment, we will require AT&T to meet its population coverage obligation by establishing a significant presence in a minimum number of states within each REAG. Our goal in defining the benchmark in this manner is to better facilitate deployment of AT&T’s smart grid network while still maintaining the minimum number of states in each REAG that corresponds to the 75 percent population coverage requirement. AT&T holds all the C and D Block licenses in the six REAGs covering the continental United States—the West, Central, Mississippi Valley, Great Lakes, Northeast, and Southeast REAGs.⁵⁰ Table 1, below, shows the minimum number of states that AT&T

⁴⁸ See Petition at 18.

⁴⁹ We note that the metric used here applies to AT&T’s specific plan and is not intended for application to all smart grid systems. It may be that other smart grid deployments are more appropriately assessed using conventional population-based or fixed link-based standards.

⁵⁰ AT&T acquired several partitioned WCS licenses through the secondary market which in sum comprise all of REAGs 1, 3, 6, and 10 in the C Block and REAGs 3, 6, and 10 in the D Block. While we generally require that licensees satisfy construction requirements for each license held, we will treat all of AT&T’s partitioned markets (continued....)

would have needed to provide coverage to in order to meet the 75 percent benchmark. These minimums are determined by taking the total population of each REAG, and, starting with the most populous state in a REAG, determining how many states AT&T would need to cover to reach approximately 75 percent of the REAG's population.⁵¹ These calculations are made for each of the six continental REAGs using 2010 census data.

Table 1

REAG	Minimum Number of States
1-Northeast	3 states
2-Southeast	4 states
3-Great Lakes	5 states
4-Mississippi Valley	6 states
5-Central	3 states
6-West	2 states

16. To preserve this outcome of minimum states served under the 75 percent population benchmark, and to ensure that a diverse array of utility companies are involved, we revise AT&T's final performance requirement as follows:

*AT&T must provide service to at least three different utility companies that collectively have a significant presence in at least the minimum number of states delineated in Table 1 for each continental REAG in which AT&T holds C and D Block licenses by September 13, 2021.*⁵²

17. Using this benchmark, in the Northeast REAG, for example, AT&T will need to provide service to at least three different utility companies that collectively have a significant presence in *at least three states* by the extended deadline. In the Mississippi Valley REAG, AT&T will need to provide service to at least three different utility companies that collectively have a significant presence in *at least six states*. In other words, the minimum number of states in which AT&T must serve at least three utility companies ranges from two states (in the West REAG) to six states (in the Mississippi Valley REAG) based on the populations of states within the respective REAGs, and is comparable to how many states it would have taken AT&T to serve 75 percent of the REAG's population.

18. In addition to keeping the benchmark tethered to the population metric in section 27.14(p)(1) of the Commission's rules, this metric will also ensure that numerous utility companies are developing smart grid networks in each region, thereby maximizing the potential for the public to benefit from the utilities' smart grid networks and applications. Again, in each continental REAG at issue, AT&T will have to provide service to *at least three utilities* that collectively have a significant presence

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within a given REAG as one market in light of the revised construction metric we are applying here, which focuses on serving utilities in a minimum number of states in each REAG.

⁵¹ For example, in the Southeast REAG, which has a total population of about 57.7 million people, AT&T would have needed to serve at least four states under the population benchmark—Florida (most populous state in Southeast REAG), Georgia (second most populous state in Southeast REAG), North Carolina (third most populous state in Southeast REAG), and Virginia (fourth most populous state in Southeast REAG)—to reach at least 43.2 million people (75 percent of Southeast REAG's population).

⁵² For the benchmark applicable to AT&T's WCS C and D Block licenses in the non-continental U.S. (REAGs 7, 8, and 10), *see infra* note 52.

in the required minimum number of states. This eliminates the sufficiency of AT&T signing up only one large utility company that happens to have operations in multiple states within a REAG to meet the modified benchmark. By combining the diversity of utility company component with the modified population component, the revised final performance requirement aligns with the Commission's goal of ensuring rapid deployment of broadband services throughout underutilized spectrum across the nation.⁵³ Consistent with the Commission's aim in 2010 and 2012, this revised benchmark will "promote service throughout a licensed market" as opposed to allowing AT&T to "cherry pick[]" areas for service.⁵⁴

19. We decline to delineate a bright-line rule for what it means for the utilities to collectively have a "significant presence" in the minimum number of states. Rather, when AT&T updates us on its progress with the utility companies in required status reports (discussed below), we will evaluate a variety of factors that could indicate a "significant presence." For example, AT&T may provide justification of a "significant presence" based on the utility companies' number of residential customers, footprint within the geographic region, number of cities or counties served in a state or region, or other relevant indicators of scope.

20. *Conditions.* We find it in the public interest to condition the relief granted to AT&T for its C and D Block licenses on AT&T meeting concrete steps showing progress toward the modified final benchmark.⁵⁵ AT&T suggested that we replace the interim performance requirement with a progress report. While progress reports are part of our conditions, they are not alone sufficient to ensure that AT&T is on track to meet its performance requirements by the September 13, 2021 deadline. Instead, we find that concrete metrics related to utility contracts and actual operations in the REAGs will best ensure that sufficient build occurs in each license area. We will use progress reports filed by AT&T to determine whether AT&T has met the conditions. Failure to comply with these conditions in a given REAG will result in termination of the waiver in that market. Specifically, we condition the relief granted to AT&T for its C and D Block WCS licenses on the following:

- By *September 13, 2017*, AT&T must file a report in ULS updating the Commission on the utility customers for which AT&T has agreed to provide its smart grid service and the timeframes for deployment with respect to those customers. The report must also provide the results of any equipment testing and trial/initial deployments.
- By *September 13, 2019*, AT&T must have contracts for commercial deployment with at least *ten utilities*, file a report in ULS demonstrating that it has such contracts, and provide supporting documentation to the Commission.⁵⁶ AT&T must also have begun operation in *two* of the six continental REAGs and provide documentation showing that it

⁵³ As mentioned, AT&T also holds WCS C and D Block licenses in Alaska (REAG 7), Hawaii (REAG 8), and Puerto Rico and the U.S. Virgin Islands (REAG 10). While circumstances affecting these REAGs are different from those affecting the continental United States, for continuity purposes we will also extend relief to AT&T for its C and D Block licenses in these REAGs. In REAG 7, we require AT&T to provide service to at least three different utility companies that collectively have a significant presence in Alaska for AT&T's C and D Block licenses by September 13, 2021. In Hawaii (REAG 8) and in Puerto Rico and the U.S. Virgin Islands (REAG 10), we require AT&T to provide service to at least one utility company in each REAG with a significant presence in the respective REAG for AT&T's C and D Block licenses by September 13, 2021.

⁵⁴ *2012 Order on Reconsideration*, 27 FCC Rcd at 13702, para. 124.

⁵⁵ *Request of Progeny LMS, LLC for Waiver and Limited Extension of Time*, WT Docket. No. 12-202, Order, DA 17-20 (WTB MD Jan. 17, 2017).

⁵⁶ We note that, in its Petition, AT&T indicated that it expects to have contracts with at least five large utilities and five small utilities by September 2019. See Petition at 20.

has done so.⁵⁷ The report filed on this date must also update the Commission on the status of AT&T's build-out and the status of AT&T's contracts with other utilities.

- By *September 13, 2020*, AT&T must have begun operation in *four* of the six continental REAGS (*i.e.*, an additional two REAGs), and file a report in ULS with documentation showing that this obligation has been satisfied. The report must again update the Commission on the status of AT&T's build-out and the utilities for which AT&T is providing service.
- By *September 13, 2021*, AT&T must file a report in ULS demonstrating its compliance with the modified final performance benchmark.

The relief described herein is applicable only to AT&T with respect to its WCS C and D Block licenses, and is not assignable to any unaffiliated party should AT&T seek to enter into a transaction regarding any of its C or D Block licenses.

III. CONCLUSION

21. Taking into account the unique circumstances and technical challenges surrounding the WCS C and D Blocks, discussed in detail above, and the non-traditional nature of AT&T's proposed smart grid deployment, we find that the relief described herein is in the public interest. Such relief will enable AT&T to deploy a beneficial, non-interfering smart grid network to a variety of utility companies nationwide, making efficient use of challenging spectrum blocks. This will be of benefit to the millions of end-user customers served by those utilities across the country.

IV. ORDERING CLAUSE

22. Accordingly, IT IS ORDERED that, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission's rules, 47 CFR § 1.925, the request filed by AT&T Mobility Spectrum LLC, BellSouth Mobile Data, Inc., New Cingular Wireless PCS, LLC, and SBC Telecom Inc. for waiver of section 27.14(p)(1)-(2) of the Commission's rules, 47 CFR § 27.14(p)(1)-(2), is GRANTED to the extent discussed and subject to the conditions imposed herein.

23. These actions are taken under delegated authority pursuant to sections 0.131 and 0.331 of the Commission's rules, 47 CFR §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Roger S. Noel
Chief, Mobility Division
Wireless Telecommunications Bureau

⁵⁷ As mentioned, the progress reports must update the Commission on how any utilities with which AT&T already has contracts, or is negotiating with for contracts, will help AT&T meet the requirement of serving at least three utilities that collectively have a "significant presence" in the minimum number of states in the REAG.