



March 25, 2014

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TW-A325
Washington, D.C. 20554

Re: *Expanding the Economic and Innovation Opportunities of Spectrum through Incentive Auctions, Docket No. 12-268*
Policies Regarding Mobile Spectrum Holdings, Docket No. 12-269

Dear Ms. Dortch:

We are a group of wireless carriers, industry associations, public interest organizations, and a labor union that recognize the fundamental importance of spectrum holdings policies to maintaining a competitive mobile wireless market. Two carriers currently control over two-thirds of critical low-frequency spectrum,¹ and they have both the resources and the incentive to prevent competitors from gaining access to this vital resource in the upcoming incentive auction.² The adoption of pro-competitive policies governing spectrum aggregation will help consumers, spur competition, stimulate investment, and accelerate wireless innovation. While many parties to this letter support additional measures to spur wireless broadband

¹ See *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Sixteenth Report, 28 FCC Rcd 3700, ¶¶ 52, 118 (2013) (“16th Mobile Competition Report”).

² See *Ex Parte* Submission of the United States Department of Justice, Docket No. 12-269 (Apr. 11, 2013).

competition, our organizations have reached consensus on four principles that should serve as the foundation of any spectrum aggregation policy.

1. Low-Band Spectrum is Unique.

Any spectrum aggregation policy should recognize the unique competitive importance of below-1 GHz spectrum. Low-band spectrum travels longer distances and penetrates buildings and other obstacles far more readily than higher-band spectrum.³ These characteristics result in substantially lower deployment costs and greatly enhanced quality of service compared to similar deployments in higher-frequency spectrum.⁴ While carriers require a mix of spectrum to provide cost-effective service, low-band spectrum is highly concentrated and competitive carriers have only limited low-band spectrum holdings. For these reasons, the Commission has stated that acquisition of spectrum below 1 GHz presents distinct and significant competitive effects.⁵ A spectrum aggregation policy should recognize the critical role that low-band, below-1 GHz spectrum plays in promoting wireless competition.

³ See, e.g., *16th Mobile Competition Report* ¶ 121 (“‘[L]ow-band’ spectrum can provide superior coverage both over larger geographic areas, through adverse climates and terrain, and inside buildings and vehicles.”); *Ex Parte* Presentation of T-Mobile USA, Inc.; DISH; Writers Guild of America, West; U.S. Cellular; Sprint; Computer & Communications Industry Association; Competitive Carriers Association; Rural Wireless Association; New America Foundation; Public Knowledge; C Spire; and NTCA – The Rural Broadband Association, Docket Nos. 12-268 & 12-269 at 7-8 (Jan. 24, 2014) (explaining the advantageous propagation characteristics of low-band spectrum and citing agreement of Verizon and AT&T executives).

⁴ See, e.g., *16th Mobile Competition Report* ¶ 122 (“Low-band spectrum can provide the same geographic coverage, at a lower cost, than higher-frequency bands, such as the 1.9 GHz PCS band, the 1.7/2.1 GHz AWS band, and the 2.5 GHz band.”); John M. Peha, Professor, Carnegie Mellon University, Comments on behalf of Public Knowledge, Docket Nos. 11-186 & 12-269 (Nov. 28, 2012) (providing a technical analysis of rural, urban and suburban deployments based on frequency and the associated impact on operating and deployment costs); Martin Cave & William Webb, *Spectrum Limits and Auction Revenue: the European Experience*, attached to Letter from Rafi Martina, Counsel to Sprint, to Marlene H. Dortch, Secretary, FCC, Docket Nos. 12-268 & 12-269 at 4 (July 29, 2013) (“For a system built to maximise coverage, the range has a major impact on deployment costs. A base station coverage area is related to the square of the range. Hence, for example, a 1.8 GHz network would need 4.8 times as many cells as a 600 MHz network for equivalent coverage.”).

⁵ See e.g., *Application of AT&T Inc., Celco Partnership d/b/a Verizon Wireless, Grain Spectrum LLC and Grain Spectrum II LLC; for Consent to Assign and Lease AWS-1 and Lower 700 MHz Licenses*, Memorandum Opinion and Order, 28 FCC Rcd 12878 ¶ 41 (Sept. 3, 2013) (explaining that if the one-third below-1 GHz threshold is triggered, the Commission examines if the transaction “could foreclose or raise costs of other service providers in these markets from deploying on below-1 GHz spectrum, and thereby prevent such rival service providers from exerting an effective competitive constraint in the marketplace.”).

2. Up-Front Rules Promote Certainty and Encourage Investment.

An overall spectrum holdings policy should be clear and certain at the outset, and established prior to the incentive auction. Competitive carriers cannot plan their business strategies or network design around the uncertain possibility that they may secure enough spectrum cast off from Verizon or AT&T in an unknown band and across a geographic area that happens to match their needs.⁶ Because wireless networks require large capital expenditures on long-lived assets, an up-front, clearly defined spectrum aggregation policy, particularly for low-band spectrum, offers competitive carriers, their investors, and lenders the certainty necessary to invest in broadband deployment.⁷ By comparison, an after-the-fact review of spectrum holdings would inject unnecessary process, delay, and uncertainty into the auction. Worse, an after-the-fact review would allow the two dominant carriers to pick and choose which competitors would have access to low-band spectrum, effectively granting the dominant carriers the power to block or delay wireless broadband deployment by their competitors.⁸

3. A Low-Band Spectrum Aggregation Limit That Accounts for Market Realities Will Promote Competition.

A spectrum aggregation policy must take market realities into account. On the one hand, AT&T and Verizon today have significant market power by almost any measure.⁹ On the other hand, smaller competitive carriers may have a significant need for additional spectrum to meet high demand in an area where other carriers have failed to deploy, or to address challenges faced with deploying in a particularly hard to serve area. Regulatory policies should recognize the role that non-dominant carriers can, with access to low band spectrum, play in increasing

⁶ See, e.g., Reply Comments of Verizon and Verizon Wireless, Docket No. 12-268 at 17-18 (“The Commission’s overarching objective should be to ensure the forward auction’s success and promoting that objective requires not injecting additional uncertainty into what is already a very complex undertaking.”); Comments of AT&T Inc., Docket No. 12-268 at 7 (June 14, 2013) (explaining that the Down from 51 Band Plan fosters the “high degree of certainty about the quality of the spectrum for sale necessary to induce robust participation and bidding” and that another band plan would create “poisonous uncertainty about spectrum value”).

⁷ See, e.g., Reply Comments of Free Press, Docket No. 12-269 at 4 (Jan. 7, 2013) (“[A] sub-1 GHz spectrum cap will provide market certainty [and] encourage more efficient use of the public airwaves.”).

⁸ Reply Comments of United States Cellular Corporation, Docket No. 12-268 at 29 (Mar. 12, 2013) (explaining that “allowing post-auction divestitures would enable the largest carriers to choose among the competitors to which to divest their spectrum,” and “such divestitures can sometimes result years later in the ultimate reacquisition of the divested spectrum”).

⁹ See 16th *Mobile Competition Report* ¶¶ 52-53, 287-88 (detailing that AT&T and Verizon control nearly all of the industry’s free cash flow, as well as roughly two-thirds of its revenues and service connections). AT&T and Verizon also have anti-competitive aggregations of low-band spectrum due in part to the consolidation of spectrum holdings that has been permitted by the current mobile spectrum holdings policy, which does not currently adequately account for low-band spectrum.

innovation and providing next-generation mobile services to areas that might otherwise go underserved or unserved.

4. A Mechanism to Distinguish Low- and High-Band Spectrum Would Improve the Spectrum Screen.

An overall spectrum aggregation policy must make qualitative distinctions between different bands of spectrum. Not all spectrum is created equal.¹⁰ One way these differences manifest themselves is in the material variations between above- and below 1-GHz spectrum.¹¹ But as numerous parties to this proceeding have explained,¹² the qualitative differences among

¹⁰ See, e.g., Remarks of Fran Shammo, Chief Financial Officer, Verizon Communications, (May 23, 2012), available at http://www.verizon.com/investor/DocServlet?doc=barclays_vz.pdf (“All spectrum is not created equal for all carriers.”); see also 16th Mobile Competition Report ¶ 120 (“The different characteristics of [the bands available for mobile service] affect how providers use them to deliver mobile services to consumers. Two licensees may hold equal quantities of bandwidth but nevertheless hold very different spectrum assets.”).

¹¹ See *supra* nn. 2-5; see also *Ex Parte* Letter from Rebecca Murphy Thompson, General Counsel, Competitive Carriers Association, to Marlene Dortch, Secretary, FCC, Docket Nos. 12-268, 12-269 (Sept. 4, 2013) (detailing the broad international consensus on the qualitative differences between high- and low-frequency spectrum for mobile broadband deployment).

¹² See, e.g., Comments of the Competitive Carriers Association, Docket No. 12-269 at 11 (Nov. 28, 2012) (“[T]o make the screen reflective of the technical, economic, and deployment differences that different spectrum bands pose for carriers (and competition), the Commission should acknowledge the disparate technical and economic characteristics of different spectrum bands. This could include assigning weights to spectrum bands based on reported valuation by carriers, engineering-based calculations, benchmarks to auction results and secondary market transactions, or some combination thereof.”); Comments of Free Press, Docket No. 12-269 at 11 (Nov. 28, 2012) (“But today this simplistic method [of treating all spectrum bands equally] ignores the large differences in value and utility between bands like 700 MHz and BRS. . . . If the Commission maintains a case-by-case evaluation approach, it has the flexibility and the duty to consider the difference in value between spectrum blocks, which is determined by wavelength, contiguous block size, block pairing, interference issues, market density, and market demographics.”); Comments of Public Knowledge and Jon Peha, Docket No. 12-269 (Nov. 28, 2012) (arguing that the Commission’s spectrum screen “must treat spectrum assignments differently depending on their frequency bands,” and proposing numerous ways in which the Commission could do so); Reply Comments of Leap Wireless International, Inc., and Cricket Communications, Inc., Docket No. 12-269 at 6-8 (Jan. 7, 2013) (“The Commission should seize on this proposed weighting approach to reflect the propagation characteristics and device ecosystem of each band, including additional bands that are now suitable and available for mobile broadband services.”); Comments of the Writers Guild of America, West, Inc., Docket No. 12-269 at 9 (Nov. 28, 2012) (“Therefore, appropriate weighting of spectrum to include qualitative differences is the critical first step towards a spectrum policy that promotes competition and limits control of the most valuable spectrum by the top firms within the industry. We urge the Commission to develop a system that weights valuable spectrum and limits the amount of such spectrum any one company can control.”); *Sprint’s Competition-Based Framework for A Weighted Wireless Broadband Spectrum Screen*, attached to Letter from Lawrence Krevor, Vice President, Sprint Corp., to Marlene H. Dortch, Secretary, FCC, Docket No. 12-269 at ii (Feb. 11, 2014)

spectrum bands do not stop at the 1 GHz band edge. A spectrum holdings policy should therefore seek to address any material variations in utility, performance, and efficiency among different bands of spectrum.

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Incorporation of these four consensus principles into any spectrum holdings policy and spectrum aggregation limits will help accelerate broadband deployment and promote the type of competitive rivalry that benefits consumers. These principles are not the only mechanisms necessary for a successful auction, but are important guidelines that emerged as the consensus view among our diverse group of stakeholders.

Recent press reports indicate that the Commission is poised to adopt final orders regarding both its overall spectrum holdings and specific auction aggregation limits. This is good news. Competitive carriers often depend on equity investment and debt issuances to finance spectrum acquisition. Therefore, the sooner the Commission adopts final rules in these two related proceedings, the greater certainty competitive carriers will have as they seek the substantial financing necessary to compete aggressively against the dominant carriers in the upcoming incentive auction.

Embracing in the very near term the four baseline principles we have identified here will help to protect consumers and provide the regulatory certainty necessary for competitive carriers to continue investing in mobile broadband services and accelerating innovation in the market.

Respectfully submitted,

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("[T]he screen's singular focus on bandwidth (the amount of commercial wireless spectrum, measured in raw megahertz, available for mobile wireless services by each provider) critically fails to reflect how firms actually acquire and deploy spectrum to provide mobile broadband services.").

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