

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In re:	)	
	)	
National Broadband Plan	)	GN Docket Nos. 09-47, 09-51, 09-137
Public Notice #26	)	
	)	
Data Sought on Uses of Spectrum	)	

**COMMENTS – NBP PUBLIC NOTICE #26**

Cellular South, Inc. (“Cellular South”), by its attorneys, hereby submits Comments in response to a Public Notice inviting input on whether the United States will have spectrum sufficient to meet the demand for wireless broadband services in the near future.<sup>1</sup>

**I. Background**

Cellular South is the nation’s largest privately-held wireless carrier.<sup>2</sup> It is a regional Code Division Multiple Access carrier serving more than 800,000 customers primarily in rural areas.<sup>3</sup>

To enhance its ability to provide wireless broadband service throughout its licensed service areas Cellular South, in FCC Auction No. 73, acquired twenty-four 700 MHz licenses.

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<sup>1</sup> *Public Notice*, DA 09-2518, released December 2, 2009 (“*Public Notice*”). The deadline for submission of these Comments was automatically extended until December 22, 2009 due to closure of the Commission on December 21<sup>st</sup> as the result of snow conditions in the Washington, D.C. area.

<sup>2</sup> Cellular South was the second largest privately-held wireless carrier prior to consummation of the merger between Alltel Corporation (“Alltel”) and Verizon Wireless.

<sup>3</sup> Cellular South provides cellular service in nine Cellular Market Areas (“CMA”) in Mississippi, consisting of two Metropolitan Statistical Areas and seven Rural Service Areas. Cellular South also provides Personal Communications Service (“PCS”) in twelve Mississippi Basic Trading Areas. In addition, Cellular South holds authorizations to provide PCS, Advanced Wireless Service and/or 700 MHz Service in portions of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, and Virginia. Cellular South recently received Commission authorization to acquire control of Corr Wireless Communications, Inc. which directly or through affiliates provides wireless services in portions of Alabama not currently served by Cellular South. *See* File No. 0003953098.

Fourteen of those licenses are for Lower Band Block A spectrum, and ten are for Lower Band Block B spectrum. Those license purchases cost Cellular South approximately \$192 million.

## **II. Productive Use of Existing Spectrum is Necessary**

At its Open Meeting on December 16, 2009, the Commission was presented with a “National Broadband Plan Policy Framework” in order to advance work on the National Broadband Plan. It was recognized that one of the keys to improving broadband availability in the U.S. is access to spectrum suitable for the purpose. In its presentation the Commission’s staff proposed “Spectrum Policy Guiding Principles” based on a conclusion that “the demand for wireless broadband services will exceed the supply of spectrum to deliver those services.”

The staff presentation identified “...3 potential paths to close the [spectrum] gap” and urged the Commission to all three because “...each individually is necessary but not sufficient.” Cellular South’s comments today will focus on the first of the three paths listed in the presentation of Commission staff: “More productive use of existing bands”

## **III. Usefulness of Licensed 700 MHz Lower Band Block A Spectrum is in Jeopardy**

As the Commission examines ways in which it can increase available spectrum for wireless services, one critical area to address is ensuring the maximum utility of spectrum that has already been brought to market. Marketplace activities can have a direct impact on the utility of spectrum that is ideally suited for wireless broadband service. Cellular South will describe recent developments that threaten to completely derail its efforts to utilize Lower 700 MHz Band paired Block A spectrum to provide wireless broadband service in rural and small markets of the U.S. One set of issues arises from development of customer equipment that does not have Lower 700 Band Block A functionality, and another set of issues involves interference to Lower Block A operations by adjacent Channel 51 TV broadcasters.

**Subscriber Equipment Capability.** Cellular South recently joined with other members of the 700 MHz Block A Good Faith Purchasers Alliance (“Purchasers Alliance”) in submitting a rulemaking petition seeking Commission action to address the 700 MHz problems that are discussed in the following sections of these Comments.<sup>4</sup>

As explained in the rulemaking petition, a significant problem has emerged since the 700 MHz auction was completed last year. The rural and regional carriers that obtained Lower Block A licenses are facing artificial technical obstacles that threaten to frustrate the carriers’ plans to deploy broadband infrastructure using Lower Block A spectrum.

Currently, equipment manufacturers are developing customer equipment for the Upper C Block spectrum and the Lower B and C Blocks of spectrum, but they are not developing customer equipment that includes the Lower Block A spectrum. Furthermore, there is no plan for developing equipment that includes Lower Block A, certainly not in the near term. Cellular South and other members of the Purchasers Alliance have been informed by manufacturers that AT&T, the largest spectrum holder in the Lower 700 MHz Bands, has requested proposals only for customer equipment that does not include Lower Block A spectrum. Neither has Verizon Wireless, according to reliable sources, requested proposals for customer equipment that would operate in the Lower Block A.<sup>5</sup>

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<sup>4</sup> See 700 MHz Block A Good Faith Purchasers Alliance, Petition for Rulemaking Regarding the Need for 700 MHz Mobile Equipment To Be Capable of Operating on All Paired Commercial 700 MHz Frequency Blocks, RM-\_\_\_\_, filed Sept. 29, 2009. The petition demonstrates that the Nation’s two largest wireless carriers have succeeded in getting a Long-Term Evolution standards group to establish self-serving band classes for 700 MHz equipment, and requests that the Commission adopt rules prohibiting restrictive mobile equipment banding arrangements and also suspend (during the pendency of the rulemaking proceeding) equipment authorizations for all 700 MHz equipment unless the equipment is capable of operating on all paired commercial 700 MHz spectrum blocks.

<sup>5</sup> Verizon Wireless, meanwhile, acquired Lower A and B Block spectrum licenses in Auction 73 but, given its extensive license holdings in the Upper C Block, Verizon Wireless thus far has not shown signs of any plans to utilize its Lower A and B Block spectrum, nor has it expressed any interest in requesting equipment manufacturers to develop devices that will work in the Lower A and B Block.

The problem Cellular South has brought to the Commission is how to avoid a proliferation of 700 MHz customer equipment that is incapable of making use of the Lower Block A. This matter is urgent because there is roughly an 18-24 month design and production cycle for the customer equipment. Without economies of scale in equipment consumers will not benefit from the potential of Lower Block A and the potential for offering wireless broadband service on an ideal block of spectrum will not be realized.

This problem is exacerbated by the fact that interference issues present in the Lower A Block require that devices developed for use in this block must have filters to lessen the interference problems, thus increasing the cost of devices including Lower Block A. Although the increment of this additional cost would not likely be substantial if the equipment is produced in large quantities, the cost will become a major problem for rural and small market Lower Block A license holders if the equipment is not brought to market in high volumes.

Without economy of scale, whatever equipment may become available will also result in higher costs for consumers. Additionally, many consumers (including large numbers of rural consumers) will have devices that have limited compatibility with other broadband service providers. This will not only restrict roaming for consumers but it will deny many consumers the opportunity to change wireless carriers while keeping the same 700 MHz device.

If this situation is allowed to persist, the consequences will be problematic for small rural and regional carriers and their customers. Earlier this year the Commission launched an inquiry into “how it can best maximize investment and innovation in the mobile industry.”<sup>6</sup> The Commission is currently reviewing comments responding to its questions of “what actions the

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<sup>6</sup> *Notice of Inquiry*, Fostering Innovation and Investment in the Wireless Communications Market, GN Docket No. 09-157, A National Broadband Plan for Our Future, GN Docket No. 09-51, FCC 09-66, rel. Aug. 27, 2009 (“*Notice of Inquiry*”).

Commission currently undertakes that perhaps it should cease, and what new steps can be taken to fulfill strategic objectives of fostering [wireless] investment and innovation for our country.”<sup>7</sup> In comments filed in that proceeding Cellular South explained the importance of its ability to use Lower Block A spectrum purchased in Auction 73 and how marketplace developments can impact investment plans and service goals. The Commission is requested to take action now that will allow the Lower Block A spectrum holders to fulfill plans for offering wireless broadband service in rural and small markets through use of purchased spectrum.

**Channel 51 Interference.** Cellular South has been warned consistently by various manufacturers of 700 MHz base station and subscriber equipment that Lower Block A operation is susceptible to disruptive interference from adjacent channel TV operations on Channel 51. To guard against this problem and predictable customer dissatisfaction with future broadband service offerings Cellular South retained a consulting engineer to identify Channel 51 licensees in the vicinity of Lower Block A markets licensed to Cellular South so that efforts could be made to eliminate the interference problem. One Channel 51 licensee accepted Cellular South’s offer to fund the cost of changing to another television channel and two other Channel 51 licensees have been approached by Cellular South and are considering similar proposals.

The *Public Notice* suggests that “there may be opportunities for broadcasters to share 6 MHz channels in a market without significantly disrupting the free over-the-air television service that consumers enjoy today.”<sup>8</sup> Cellular South encourages the Commission to pursue a review of those opportunities with a goal of moving TV operations off all or a portion of Channel 51 in

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<sup>7</sup> Written Statement of Julius Genachowski, Chairman, FCC, before the Committee on Energy and Commerce, Subcommittee on Communications, Technology, and the Internet, U.S. House of Representatives, Sept. 17, 2009, at 2, referring to the *Notice of Inquiry*.

<sup>8</sup> *Public Notice* at 2.

order to promote availability of high quality interference-free wireless broadband operations on adjacent Lower Block A spectrum.

If there is to be productive use of existing spectrum, which is something Commission staff working on the National Broadband Plan considers essential to close the gap for sufficient spectrum for broadband services, there is an urgent need for action by the Commission to lower formidable barriers to efficient use of Lower Block A spectrum by the companies that purchased such licenses.

#### **IV. Prompt Action by the Commission can Remedy the Problems and Allow Productive Use of Currently Allocated CMRS Spectrum Well Suited for Wireless Broadband**

When cellular systems were first deployed, the Commission's rules required that mobile equipment operate on all 666 channels (i.e., both cellular Blocks A and B) as a necessary measure "...to insure full coverage in all markets and compatibility on a nationwide basis." Cellular Communications Systems, 86 FCC 2d 469, 482 (1981). Cellular South and other Lower Block A petitioners ask the Commission to adopt a similar rule as to 700 MHz mobile devices and, to guard against immediate harm, to suspend equipment authorization for 700 MHz subscriber equipment that does not include Lower Block A while the Commission conducts an expedited rulemaking proceeding to review and address the issues.

To minimize or avoid adjacent channel interference from Channel 51 TV operations Cellular South respectfully urges the Commission either (i) to place a temporary freeze on the acceptance of new Channel 51 TV applications while potential interference issues are studied in the context of the National Broadband Plan, or (ii) to require that any new Channel 51 TV applications include a guardband between the portion of Channel 51 to be used and Lower 700 Band Block A so as to minimize the potential for harmful interference.

## V. Conclusion

While the Commission considers how to make more bandwidth available for broadband services there should be an equal effort to make existing spectrum more useful. These comments have shown how the Commission's policies can be compromised if the agency is not vigilant in monitoring marketplace activities that relate to the capability of subscriber equipment to operate on Lower 700 Band Block A. There is also a need for the Commission to revisit Channel 51 TV interference issues with Lower Block A spectrum with the National Broadband Plan in mind and to take action to minimize interference that otherwise appears certain to occur.

Respectfully submitted,



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