Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands	)	WT Docket No. 12-70
Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz	)	ET Docket No. 10-142
Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands	)	WT Docket No. 04-356

COMMENTS OF METROPCS COMMUNICATIONS, INC.

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MetroPCS Communications, Inc. ("MetroPCS"),[1] by its attorneys, hereby respectfully submits its Comments in response to the *Notice of Proposed Rulemak*ing ("*NPRM*") and *Notice of Inquiry* ("*NOI*") issued by the Federal Communications Commission (the "FCC" or "Commission") in the above–captioned proceedings.[2] As discussed in greater detail below, while MetroPCS supports and shares the Commission's interest in increasing the amount of

[1] For the purpose of these Comments, the term "MetroPCS" refers collectively to MetroPCS Communications, Inc., and all of its FCC-license holding subsidiaries.
[2] *In the Matter of Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands; Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz; Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands*, in WT Docket Nos. 12-70, 04-356, ET Docket No. 10-142, Notice of Proposed Rulemaking and Notice of Inquiry (rel. Mar. 21, 2012) ("*NPRM*").

broadband spectrum available for terrestrial use, MetroPCS strongly opposes the Commission's proposal to give the existing 2 GHz mobile satellite service ("MSS") licensees – which are under the common control of DISH Network Corporation ("DISH")[3] – a substantial unwarranted windfall by converting their MSS licenses into 40 MHz of largely unfettered terrestrial licenses without competitive bidding or any return to the United States for the increased spectrum value. Rather than making all or some of the long-underutilized MSS spectrum available to the spectrum-starved wireless industry as a whole, the Commission's proposal provides an unjustified, substantial windfall to the latest MSS licensees – without any corresponding benefit to the public. The root of the Commission's proposal is its view that terrestrial use of the MSS spectrum must be under the sole control of the MSS satellite licensee and any terrestrial use of the spectrum by an independent licensee would unduly interfere with the satellite use of the spectrum. This view is fatally flawed in light of current technology and must be revisited. Rather, MetroPCS submits that the existing licensees should be required to relinquish a portion of the 40 MHz allocation they currently hold in the 2 GHz MSS band. The relinquished spectrum should then be reallocated for terrestrial-only mobile wireless use and auctioned off utilizing the Commission's well-honed auction procedures. In support, the following is respectfully shown:

I. INTRODUCTION AND SUMMARY

The *NPRM* presents a critical decision that will affect the future path of – and services provided over – the 2 GHz MSS spectrum. The Commission can choose to repeat failed incremental policies of the past that have resulted in prime spectrum that is perfectly suited for

[3] On March 2, 2012, the Commission granted DISH and Gamma Acquisition, LLC control over certain 2 GHz MSS licenses that were owned by bankrupt entities, DBSD Satellite Services G.P. ("DBSD") and TerreStar License Inc. ("TerreStar"). *See infra* footnote 97.

terrestrial broadband use being preempted by MSS licensees with no mobile terrestrial network experience and devoted to a discredited hybrid satellite/terrestrial mobile service. Or, the Commission can take this golden opportunity to take a bold, visionary step and put at least a portion of this 40 MHz of spectrum to its highest and best use, by making it available to experienced operating wireless companies to ease the severe spectrum shortage that exists in the terrestrial mobile industry today. The Commission must break the vicious cycle that has allowed the MSS spectrum to give flexibility to MSS operators merely to have the spectrum languish in the hands of speculators and instead choose a path that will allow for new competitive options and terrestrial broadband services to be provided – in the near-term – over the 2 GHz MSS spectrum.

MetroPCS applauds the Commission for recognizing that reforms are necessary in the 2 GHz MSS band, and commends the Commission's decision to open a rulemaking proceeding to address the future use of this spectrum. However, such valuable spectrum rights cannot and should not be gifted to the latest licensees of the 2 GHz MSS spectrum, particularly since the original determination that satellite and terrestrial uses were incompatible – and thus had to be awarded to the satellite licensee – may be incorrect based on current technology. As a result, the Commission should not proceed with the proposals in the *NPRM* to give the existing licensees authority to allow terrestrial operations governed under Part 27 in the 2 GHz MSS band via separately allocated terrestrial-only licenses for the entire 40 MHz of the 2 GHz MSS band (the "AWS-4 Proposal"). Instead, as explained in greater detail below, MetroPCS proposes that the Commission follow the important goals it set in the *National Broadband Plan ("NBP")*, and use this opportunity to update the technology record to find that the satellite licensee should be required to return to the Commission a significant portion of the 2 GHz MSS spectrum in order to help alleviate the spectrum crunch this country is facing in exchange for increased flexibility.

A brief overview of the history of the 2 GHz MSS band demonstrates that the Commission, despite its numerous attempts at reform over the past decade, has been utterly unsuccessful in promoting even minor utilization of this prime spectrum. The Commission's approach of repeatedly tinkering with the terms and conditions of the 2 GHz MSS licenses – whether by reducing the number of license holders, increasing the amount of spectrum for certain licensees in the band, or by increasing the flexibility given to the licensees in the band – has failed, and should not be continued indefinitely. There were two core flaws in the Commission's understanding that led to this approach. First, was the Commission's view that the terrestrial use necessarily interfered with the satellite service in this band; and second, was the view that MSS would be commercially viable in major metropolitan areas. This second mistaken view was exacerbated by service rules that resulted in licenses being placed in the hands of satellite operators who had no substantial experience constructing and operating commercial networks. The FCC's previous actions to modify the 2 GHz MSS licenses to allow existing licensees to gain additional spectrum and flexibility were as helpful as moving deck chairs on the Titanic, and have not resulted in benefits to the public. There is nothing in the record that suggests that providing the newest MSS satellite operators increased flexibility in the spectrum will be any more successful than prior efforts. Therefore, the Commission should not continue down this road once again and provide additional flexibility by further relieving the incumbent licensee from its satellite obligations in the hope that a terrestrial network will emerge.

MetroPCS also demonstrates below that the value of the 2 GHz MSS spectrum with unrestricted terrestrial rights would be significantly greater than the value of the current MSS license. This evidence demonstrates the substantial windfall that the existing licensees would receive as a result of the Commission's proposal. Such a windfall would certainly not be in the

public interest and accordingly, the Commission should use this opportunity to benefit the public and promote competition by obtaining due compensation from the existing licensees in return for granting them flexible terrestrial rights on a portion of the 2 GHz band spectrum. In effect, MetroPCS proposes a 'fresh start' to break away from the current failed regulatory approach. Specifically, MetroPCS offers two proposals for the Commission's consideration, either of which would increase flexibility in the 2 GHz band, increase competition for the provision of wireless services, ease the spectrum crunch faced by existing mobile wireless providers, and provide needed revenues for the United States Treasury.

MetroPCS' first proposal is to require the existing licensees to relinquish 20 MHz of their 40 megahertz of 2 GHz spectrum in exchange for the relaxation of the gating criteria and the grant of a co-primary terrestrial right on the remaining retained 20 MHz. Thus, the existing licensees' remaining 20 MHz would be used either to provide MSS or terrestrial-only services.[4] Alternatively, MetroPCS' second proposal is for the Commission to require the existing licensees to relinquish 30 MHz of their 2 GHz MSS spectrum in the top 100 metropolitan statistical areas ("MSAs") while allowing them to retain all 40 MHz outside the top 100 MSAs. In these top 100 MSAs, the existing licensees would retain 10 MHz of its spectrum, over which they may provide either MSS or terrestrial-only services – and they would retain the full 40 MHz of spectrum to provide both satellite and terrestrial services outside of these MSAs; including rural areas where MSS services may be particularly well-suited to provide service.

The Commission has clear authority to adopt such proposals under Section 316 of the Communications Act, as has been demonstrated previously in similar situations – and such

[4] While MetroPCS believes that it may be possible to share the spectrum in the same area using CDMA or LTE technology, MetroPCS believes that proposals short of complete separation of terrestrial and satellite uses may not be appropriate.

authority is cited throughout the *NPRM* as a mechanism for modifying the existing 2 GHz MSS band allocation. Finally, in all events, MetroPCS believes that the top priority of this proceeding should be to free up valuable spectrum for immediate terrestrial use. Therefore, if the Commission chooses not to adopt either of MetroPCS' proposals, then it should consider investigating alternative potential bands of spectrum to move the existing 2 GHz MSS licensees to in order to begin the provisioning of MSS service – while recapturing the full 40 MHz of 2 GHz MSS band spectrum for immediate auction and terrestrial mobile wireless use.[5]

II. FOR OVER A DECADE, THE 2 GHZ MSS SPECTRUM HAS REMAINED LARGELY FALLOW

In the *NPRM*, the Commission provides a historical overview of the actions taken with respect to the 2 GHz MSS band spectrum. Certain aspects of this history are worth repeating in order to reduce the risk that the unfortunate cycle the Commission has found itself in, with respect to underutilization of this valuable spectrum, will repeat itself.

As the Commission explains in the *NPRM*, the 2 GHz MSS band originally was licensed for fixed microwave use.[6] In 1997, the Commission reallocated 70 megahertz for MSS, intending for this modification "to provide communication in areas where it is difficult or impossible to provide communications coverage via terrestrial base stations, such as remote or rural areas and non-coastal maritime regions, and at times when coverage may be unavailable from terrestrial-based networks, such as during natural disasters"[7] or – in other words – for primarily satellite-based services. However, it was not until 2000 that the Commission adopted

[5] For example, a portion of the 1755 – 1850 MHz band may be suitable for MSS services and may be compatible with existing governmental uses that could allow the MSS operators and the government to more easily share the spectrum rather than offer purely terrestrial services.

[6] *NPRM* at ¶ 3.

[7] *Id.* at ¶ 3.

MSS rules for the 2 GHz Band, imposing strict milestone requirements to ensure that licensees launch their satellites in a timely manner, and fully utilize the spectrum that was provided to them.[8] In addition to these milestones, the Commission recognized that not all systems would be implemented, and indicated that it would evaluate the proper procedure for any "abandoned spectrum,"[9] which included spectrum potentially reclaimed by the Commission from licensees due to missed milestones. A year after these rules were adopted, the Commission "authorized "eight satellite operators to provide MSS in the 2 GHz Band."[10] Notwithstanding that in 1993 the Commission received authority to auction licenses, these eight authorizations granted to MSS licensees were unauctioned, resulting in no compensation to the American public for the use of these valuable public assets.

In 2003, the Commission cancelled three of the MSS authorizations for the licensees' failure to meet their system implementation milestones – demonstrating the difficulty surrounding the provisioning of MSS on this spectrum and foreshadowing events to come.[11] The Commission viewed the first milestone requirement – to enter into a "non-contingent satellite manufacturing contract"[12] – which two of these licensees failed to meet – as "especially important because it provides an early objective indication as to whether a licensee is committed

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[8] *Id.* at ¶¶ 3, 4; *In the Matter of the Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, Report and Order, IB Docket No. 99-81, 15 FCC Rcd 16127 (2000) ("*2 GHz MSS R&O*"); *see also In the Matter of Mobile Communications Holdings, Inc. and ICO Global Communications (Holdings) Limited for Transfer of Control*, Memorandum Opinion and Order, 18 FCC Rcd 1094 ¶ 15 (2003) ("*2003 License Cancellation Order*").

[9] *2 GHz MSS R&O* at ¶ 18.

[10] *NPRM* at ¶ 4.

[11] *Id.*

[12] *2003 License Cancellation Order* at ¶ 16.

to proceeding with implementation of its proposal,"[13] and furthermore, whether it is capable of doing so.[14] In this instance, the Commission found that the arrangement that these licensees entered into – "contracts for purchase of satellite capacity *if and when* the satellites in question" were constructed and launched – failed to indicate commitment or capability to deployment.[15] Therefore, the associated spectrum was deemed "abandoned spectrum" and the Commission proposed to reallocate at least 10-14 MHz of such spectrum for the provision of Advanced Wireless Services ("AWS").[16]

These milestones were strictly enforced because "it is in the public interest to ensure that licensees proceed expeditiously to complete construction of their full systems and to commence service."[17] These public interest considerations, along with the recognition of the growth of terrestrial wireless services, resulted in the Commission reducing the 70 MHz of MSS to 40 MHz, and reallocating the remaining 30 MHz to terrestrial Fixed and Mobile use.[18] In conjunction with this action, there was overwhelming support from industry members who

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[13] *Id.* at ¶ 15.

[14] *Id.* at ¶ 18.

[15] *Id.* at ¶ 16.

[16] *In the Matter of Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems,* ET Docket No. 00-258, IB Docket No. 99-81 RM-9911, RM-9498, RM-10024, Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order, 18 FCC Rcd 2223, ¶ 19 (2003) ("*AWS Third Report and Order*").

[17] *In the Matter of Application of Globalstar, L.P. for Modification of a License for a Mobile-Satellite Service System in the 2 GHz Band,* Memorandum Opinion and Order, 18 FCC Rcd 1249, at ¶ 6 (2003).

[18] *AWS Third Report and Order* at ¶ 19; *NPRM* at ¶ 4.

recognized that the market for satellite services had decreased, and would likely continue to decrease.[19]

However, while the Commission decreased the total amount of spectrum available for MSS, at the same time, it increased the flexibility available to existing MSS licensees. In recognition of the growing role that mobile services were playing in telecommunications, the Commission adopted the ancillary terrestrial component ("ATC") rules to allow licensees to augment, their satellite services using terrestrial facilities.[20] The Commission made sure to express its desire that the additional flexibility provided by the ATC rules was to be strictly ancillary to the satellite component. For example, former Commissioner Copps wrote, "[A]ncillary terrestrial component service by satellite providers must remain ancillary – in other words, when it comes to ATC, the tail cannot be allowed to wag the dog."[21] Former Commissioner Adelstein agreed, stating that "we should not allow an MSS system with an ancillary terrestrial component to evolve into a terrestrial system with an ancillary mobile satellite component."[22]

The Commission, in recognizing the increased value that ATC capabilities would provide to operators, imposed significant gating criteria that existing licensees had to meet in order to

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[19] *AWS Third Report and Order* at ¶ 19.

[20] This authority, however, was predicated in part on the Commission's finding at the time that it was not technically possible to have satellite and terrestrial licensees share the spectrum. Therefore, this finding led to the Commission granting the ATC authority solely to the satellite licensee without an auction and without any payment for the increased value.

[21] *In the Matter of Globalstar Licensee LLC, Application for Modification of License for Operation of Ancillary Terrestrial Component Facilities*, File No. SAT-MOD-20080516-00106, Call Sign: S2115, FCC 08-254, Order and Authorization, Statement of Commissioner Michael J. Copps, pg. 21 (rel. Oct. 31, 2008) ("*Globalstar Order*").

[22] *Globalstar Order*, FCC 08-254, Statement of Commissioner Jonathan S. Adelstein, pg. 22.

take advantage of the additional flexibility.[23] These Commission actions provided the MSS operators with this additional flexibility in the hopes that innovative and enhanced services would finally be provided to the public. The Commission intended for MSS operators to enhance their ability to offer MSS "without using any additional spectrum resources beyond spectrum already allocated and authorized" for MSS in these bands.[24] Unfortunately, these reforms did not go as the Commission had planned, and rather than promote satellite services in this band, operators focused on the ATC authorization – in direct contradiction to the Commission's intended effects. Furthermore, the Commission did not receive any consideration from the existing licensees in return for the additional flexibility provided by the new ATC rights.

Despite the introduction of additional ATC flexibility, in 2005, three MSS licensees - Boeing, Iridium and Celsat - surrendered their 2 GHz MSS licenses. At that time, recapturing and reallocating the spectrum for the fast growing terrestrial mobile wireless industry would have been ideal. Unfortunately, rather than reallocating the spectrum in recognition of the eight years of 2 GHz MSS licensees failing to provide beneficial public service, the Commission instead doubled down on the remaining licensees by giving them more spectrum. This additional spectrum grant was again made without an auction, without any financial consideration being paid by the licensees, and without imposing additional service requirements to promote benefits to the public. Indeed, while intervening parties asked the FCC to recapture and reallocate such

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[23] *Flexibility for Delivery of Communications by Mobile Satellite Service Provides in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, IB Docket Nos. 01-185, 02-364, Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 1962, ¶¶ 72-86 (2003) ("*ATC Report and Order*"). Such requirements included: (1) continuous satellite service in specified geographic areas; (2) maintenance of one or more spare satellites; and (3) providing commercially available MSS throughout the required coverage area. *See also NPRM* at ¶ 5; 47 CFR § 25.149(b)(1) – (b)(3).

[24] *ATC Report and Order* at ¶ 1.

spectrum,[25] instead, the Commission chose to reassign the spectrum to the last remaining 2 GHz MSS licensees - DBSD Satellite Services G.P. ("DBSD") and TerreStar License Inc. ("TerreStar") – without holding an auction or without receiving any value for the increased spectrum.[26] It reasoned that "significant public interest benefits to keeping the current MSS allocation" still remained.[27]

Both of these operators, now with 20 MHz of spectrum each, met their threshold satellite operational milestones, and received ATC authority.[28] However, shortly after the operators received ATC authority, each license holder found that its services were not financially viable and subsequently filed for bankruptcy. At this point, DBSD had yet to offer any commercial service to the public over its 20 MHz of spectrum, and TerreStar had only begun offering a token amount of satellite service, via one handset, through a partnership with AT&T, and had not used its ATC authority at all. Thus, despite the Commission's provision of free additional spectrum, and its grant to the licensees of additional flexibility in the use of such spectrum, including ATC authority, these operators still could not manage to deploy a commercially viable service on the 2 GHz MSS band.

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[25] See e.g., Intel Corporation Second Comments in IB Docket Nos. 05-220, 05-221, at 9-11 (filed July 25, 2005); CTIA Second Comments in IB Docket Nos. 05-220, 05-221, at 9 -10 (filed July 25, 2005); U.S. Cellular Second Comments in IB Docket Nos. 05-220, 05-221, at 2-4 (filed July 25, 2005); T-Mobile First Comments in IB Docket Nos. 05-220, 05-221 at 7-9 (filed July 13, 2005).

[26] *NPRM* at ¶ 8.

[27] *In the Matter of Use of Returned Spectrum in the 2 GHz Mobile Satellite Service Frequency Band*, IB Docket Nos. 05-220, 05-221, Order, 20 FCC Rcd 19696 at ¶ 43 (2005). Such Public Benefits included: (a) public safety; (b) broadband service in rural areas; (c) globally harmonized MSS allocation and (d) promotion of mobile telecommunications services in conjunction with the 30 MHz reallocated for terrestrial wireless services in 2003.

[28] *NPRM* at ¶ 8.

Once TerreStar and DBSD were in bankruptcy, rather than the Commission reorganizing the MSS service to be used as originally intended, all 40 MHz of MSS spectrum was purchased by DISH for $2.8 billion dollars. In its FCC application to obtain the licenses, DISH repeated the actions of the prior MSS operators and asked for even more flexibility from the Commission for this spectrum, in the form of waivers which would essentially allow DISH to convert this spectrum to terrestrial services. While the Commission granted DISH's applications to obtain the 40 MHz of spectrum, it rightfully denied its waiver requests in lieu of this proceeding.[29]

Having taken the wise step of denying the DISH waiver requests and initiating instead a proceeding to revisit the highest and best use of this band, the Commission appears to be on the verge of squandering the opportunity to get it right once again. The Commission claims that it seeks to "increase the Nation's supply of spectrum for mobile broadband by removing unnecessary barriers to flexible use of spectrum currently assigned to the [MSS] in the 2 GHz band."[30] MetroPCS strongly supports this goal, but the Commission will not achieve it by continuing to grant additional rights and flexibility to the existing MSS licensees. This approach consistently has resulted in failure; with 40 MHz of spectrum still laying fallow after all of those years. Furthermore, this approach will likely result in these licenses being sold in the secondary market – possibly to one licensee – with the increase in value accorded by additional authority accruing only to the current licensees. Thus, while the Commission should implement "terrestrial service rules for [the 2000 – 2020 MHz and 2180 – 2200] spectrum bands that would

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[29] *In the Matter of Applications for Consent to Assign/Transfer Control of Licenses and Authorizations of New DBSD Satellite Services G.P., Debtor-in-Possession and TerreStar License Inc., Debtor-in-Possession* et al., in IB Dockets No. 11-150, 11-149, Order (rel. Mar. 2, 2012).

[30] *NPRM* at ¶ 1.

generally follow the Commission's Part 27 rules modified as necessary,"[31] it should not assign these new terrestrial licenses to the current 2 GHz MSS licensees, without an auction, or without receiving proper consideration for the increase in value resulting from the co-primary terrestrial authorization that will be freed of the previous substantial satellite gating criteria and ATC conditions. If not, the Commission proposal will continue down the same dead-end path and the 2 GHz band is likely to end up the same way: unused.

In order to break this cycle, and at the same time, further promote its goals of fostering broadband deployment pursuant to the *NBP*, the Commission should consider MetroPCS' below proposals which would increase flexibility in this band, promote competition, provide revenues to the U.S. Treasury, and finally allow this 40 MHz of prime spectrum to be utilized to provide service to the public.

III. GIVEN THE CURRENT SPECTRUM CRUNCH, THE COMMISSION'S PROPOSAL TO GRANT SEPARATE TERRESTRIAL SPECTRUM RIGHTS TO THE EXISTING 2 GHZ MSS LICENSEE SHOULD NOT BE ADOPTED

The Commission concludes that the concerns which triggered this proceeding "appear to present strong reasons that lead [the Commission] to propose that AWS-4 licenses in this band should be assigned to the incumbent MSS licensee."[32] MetroPCS strongly disagrees with this Commission assertion. Properly viewed, the sorry history of this spectrum allocation to the existing licensees provides no reason to give additional rights – rather, it provides reasons to do the opposite. In fact, despite the Commission's constant attempts at reform, the Commission admits that "[t]o date, there remains little commercial use of this spectrum for MSS and none for

[31] *Id.* at ¶ 17.

[32] *Id.* at ¶ 71.

terrestrial (ATC) service."[33] The newest proposal is yet another grant of additional rights to an existing licensee without significant conditions or due consideration, and will prove to be yet another failed reform, and therefore should not be adopted. The serious broadband spectrum crunch is preventing experienced mobile operators from providing sorely needed wireless services. The Commission is running out of time to provide competitive carriers the spectrum they need to provide competitive services to consumers, and cannot afford another failed effort to reform the 2 GHz band in favor of an existing licensee. Rather, the Commission must recognize that it is now being presented with a unique opportunity to further promote competition in the wireless industry by ensuring that unused spectrum is utilized by those who need it most. In doing so, the Commission should heed the well thought-out recommendations of the *NBP* with respect to the 2 GHz MSS band spectrum. It should therefore examine all avenues that it may take to achieve these goals, with one being spectrum sharing. As stated previously, the Commission's AWS-4 proposal is based on an outdated understanding of the technology involved with sharing spectrum for terrestrial and satellite services, specifically, the Commission's view that terrestrial use would interfere with satellite services in the 2 GHz MSS band. Therefore, MetroPCS submits that now, in the midst of a spectrum crunch, is the proper time for the Commission to reexamine the issue and find that the sharing of spectrum by satellite and terrestrial licensees is technically feasible.

a. Mobile Wireless Providers are in Desperate Need of Additional, Usable Spectrum

It is well known within the communications industry that operators in this country face a severe spectrum crisis. But it is not just the communications industry and the FCC that is tuned in to this problem; other branches of the government are also paying attention. One of the

[33] *Id.* at ¶ 8.

President's aides recently stated that "what we are most focused on is getting more spectrum in the hands of wireless carriers" and "[w]e've got teams working within every agency" meeting every "couple of weeks" on this issue.[34] Also, key legislation regarding spectrum has been passed by Congress, while other spectrum bills are currently circulating on Capitol Hill. It has been made clear that spectrum is and should be a top priority.

With the spectrum shortage threatening the future competitiveness of the wireless segment of the communications industry, the Commission rightfully has its sleeves rolled up, and is seeking to find a solution to the growing crisis. As Chairman Genachowski has stated "[t]his explosion in demand for spectrum is putting strain on the limited supply available for mobile broadband, leading to spectrum crunch."[35] The Commission previously has acknowledged that "mobile broadband is being adopted faster than any computing platform in history, and could surpass all prior platforms in their potential to drive economic growth and opportunity."[36] Mobile service is an important force behind broadband deployment and continued competition, but more spectrum must be provided in order to allow the mobile industry to fulfill its future potential. Both the general increase in wireless use, along with how Americans are using their wireless service, has contributed to the rapidly growing demand for spectrum.

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[34] Eliza Krigman, *W.H. Working Closely With Carriers On Spectrum*, PoliticoPro, (May 9, 2012, 5:43 PM EST) https://www.politicopro.com.

[35] Julius Genachowski, Chairman, FCC, Remarks at Mobile Future Forum, Washington, DC at 5 (Mar. 16, 2011) http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305225A1.pdf.

[36] Julius Genachowski, Chairman, FCC, Remarks at CTIA Wireless 2011, Orlando Florida, March 22, 2011, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305309A1.pdf. (*Chairman Genachowski 2011 CTIA Speech).*

At the recent CTIA Wireless Convention in New Orleans, CTIA's CEO, Steve Largent, recognized this growing need for spectrum, citing a recent CTIA report that found that U.S. Wireless data traffic rose 123% between 2010 and 2011, to 866.7 billion megabytes from 388 billion in 2010.[37] The increased popularity of smartphones and tablets, coupled with increased data speeds, has caused a rapid increase in data consumption by consumers.[38] Previously, a typical consumer only viewed text-based WAP Internet pages occasionally on their feature phone – perhaps using 10-20 Mbps a month. Now, a consumer using a smartphone with 4G LTE speeds to stream video and audio will use gigabytes, rather than megabytes, of data. Currently, smartphones use approximately 24 times the spectrum capacity of traditional phones, while tablets use approximately 120 times the spectrum capacity.[39] Indeed, a recent survey commissioned by Nielsen found that 62 percent of mobile users ages 25-34 own smartphones, which makes more urgent the need to cure the spectrum shortage.[40] Moreover, smartphone traffic is expected to be *47 times greater* in 2015 than it is today,[41] and tablets are expected to

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[37] Press Release, CTIA – The Wireless Association, Semi-Annual Survey Shows Significant Demand by Americans for Wireless Broadband (Apr. 13, 2012) http://www.ctia.org/media/press/body.cfm/prid/2171.

[38] This phenomenon is not limited to post pay or even the most well-heeled demographic. Indeed, MetroPCS has seen a similar increase in use by its low-income subscribers as they adopt smartphones in increasing numbers. As MetroPCS recently announced at the end of the first quarter of 2012, 46 percent of all subscribers were on smartphone plans. Furthermore, adoption of 4G LTE smartphones by no-contract users is also increasing. Such adoption is helping to tear down the digital divide in that a larger percentage of Americans using prepaid plans are more likely to access the Internet solely or primarily through their mobile devices.

[39] *Chairman Genachowski 2011 CTIA Speech.*

[40] Generation App: 62% of Mobile Users 25-34 Own Smartphones (Nov. 3, 2011), http://blog.nielsen.com/nielsenwire/online_mobile/generation-app-62-of-mobile-users-25-34-own-smartphones/.

[41] Charla Rath, *Spectrum – Crunching the Numbers*, Verizon Policy Blog (Feb. 23, 2012, 4:55 PM EST), http://policyblog.verizon.com/BlogPost/852/Spectrum-CrunchingtheNumbers.aspx.

generate as much traffic in 2015 as the *entire global network* did in 2010.[42] The Commission itself concluded that "[e]ven with substantial investment, it is likely that mobile data demand will exhaust spectrum resources within the next five years."[43] As Chairman Genachowski recently stated, it is "better to face these challenges than see shrinking demand."[44] Without action, the current spectrum crunch will transform into a full spectrum drought, halting innovation, competition, and technology.

It also is clear that data consumption will continue to grow exponentially as network speeds become faster, more data hungry applications are launched and consumers become increasingly more comfortable with advanced technology. These changes in the ways that consumers use their mobile phones also means that wireless service providers must plan for this increased use. Wireless carriers, especially small, rural and mid-sized carriers such as MetroPCS, must act quickly – and usually expensively – to add spectrum and modify their infrastructure to keep up with the consumer demand.[45] Since spectrum is so limited, small, rural and mid-sized carriers must maximize the efficiency of the smaller spectrum bandwidths they hold, which is typically must more expensive than deploying the network technology on larger

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[42] *Id.*

[43] *NPRM* at ¶ 12.

[44] Julius Genachowski, Chairman, FCC, Prepared Remarks to International CTIA Wireless 2012, New Orleans (May 8, 2012) http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-313945A1.pdf.

[45] The Commission should acknowledge that existing carriers have already committed several hundred of billions of dollars to build today's wireless cell phone service, and such investments in this industry sector are in jeopardy of being only marginally effective due to the proposed spectrum policies.

bandwidths.[46] It is only a matter of time before the gains achievable through this more intensive use of existing spectrum are exhausted. This is alarming because wireless spectrum is "the oxygen that allows all of the[] mobile innovations to breathe."[47] Without plentiful and meaningful access to wireless broadband spectrum, providers simply will not be able to offer robust services to their customers. This limited access to spectrum also diminishes competition. Spectrum-starved wireless providers will be unable to offer competitive, innovative services and new technologies. Already this effect has caused MetroPCS to eschew offering data services to laptops and tablets because such devices use more data than smartphones. Without additional spectrum, smaller carriers will struggle to stay afloat, and risk suffocating from the lack of oxygen.

b. The Commission Should Follow the *National Broadband Plan's* Recommendation to Reallocate the 2 GHz Band for Terrestrial Use – But Only for Appropriate Consideration

In response to the growing needs of the industry, the Commission issued a report on the state of broadband, and developed a plan to ensure that the needs would be met. Specifically, the *NBP* dictates that the FCC must make 500 megahertz of spectrum available for broadband use within ten years.[48] The *NBP* also recommended that 300 megahertz of this spectrum should be allocated to mobile wireless use within five years.[49] The 2 GHz MSS S-Band spectrum was identified in the *Plan* as part of the 300 MHz of spectrum that the Commission hoped to make

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[46] Neil Gompa, *Can the Wireless Spectrum Keep Up with Smartphone Data Usage?* ExtremeTech, April 25, 2012, http://www.extremetech.com/mobile/126873-can-the-wireless-spectrum-keep-up-with-smartphone-data-usage.

[47] *Chairman Genachowski 2011 CTIA Speech.*

[48] FEDERAL COMMUNICATIONS COMMISSION, CONNECTING AMERICA: A NATIONAL BROADBAND PLAN FOR OUR FUTURE, Recommendation 5.8, pgs. 84-85 (2010).

[49] *Id.*

available for commercial use by 2015.[50] Specifically, the *NBP* recommended that the "FCC should add a primary 'mobile' (terrestrial) allocation to the S-Band . . . which will provide the option of flexibility to licensees to provide stand-alone terrestrial services using the spectrum."[51] The *Plan* noted that the "[e]xercise of this option should be conditioned on construction benchmarks, participation in an incentive auction, or other conditions designed to ensure timely utilization of the spectrum for broadband and appropriate consideration for the step-up in the value of the affected spectrum."[52] While MetroPCS supports the Commission's action to add a terrestrial allocation to the 2 GHz MSS band, nowhere in the *NBP* does it suggest that such expansion of authority to include terrestrial spectrum rights should be granted, without consideration, to an existing licensee in the band or without appropriate consideration for the step-up in value. Indeed, the *NBP* specifically contemplated either an incentive auction, or the grant of appropriate consideration, due to what it recognized would be a significant increase in the value of added terrestrial rights to the 2 GHz MSS band spectrum. This being the case, it is revisionist history at its worst for the Commission now to suggest that the gift it proposes to give to the incumbent 2 GHz MSS licensees is consistent with the *NBP*. Rather, in a time where spectrum is scarce and many existing carriers are in need of it to serve customers, the Commission must take the appropriate actions to ensure that all available spectrum is being used in the most efficient manner and is put to immediate use, consistent with the proposals set forth in the *NBP*.

c. Sharing of Spectrum by Terrestrial and Satellite Licensees is Technically Feasible

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[50] *Id.* at Recommendation 5.8.4, pgs. 87-88.

[51] *NPRM* at ¶ 13 (quoting the NATIONAL BROADBAND PLAN, Recommendation 5.8.4 at 87 -88) (emphasis added).

[52] *Id.*

Spectrum efficiency may be promoted through the use of spectrum sharing. As an initial matter, it is not clear that the Commission's original finding, that terrestrial services and satellite services cannot be separately licensed in the same geographic area, is applicable in the current technology environment. Before the Commission blasts off and grants further authority to satellite licensees based on flawed assumptions, it must reexamine the extent to which sharing by terrestrial and satellite services in the same area is possible.[53]

The current licensees of MSS spectrum have deployed sophisticated satellites which support derivatives of both spread spectrum technologies, such as CDMA and GSM, plus other newer technologies such as Long Term Evolution ("LTE"). In addition, both of the satellites deployed on the MSS spectrum support the use of spot beams which permit the licensees to target their coverage to specific areas allowing the satellite operator to broadcast a signal in certain areas and not in others.[54] It is MetroPCS' understanding that even if the satellite broadcasts in the same area as a terrestrial licensee, the satellite will not cause catastrophic interference which would exclude terrestrial use of the spectrum: Indeed, using known technologies, the satellite provider with the ATC provider can implement interference mitigation technologies to allow for concurrent usage.

Moreover, the advance coding and interference cancellation and mitigation techniques possible with the current technologies allows for greater interference protection for the satellite handsets from terrestrial broadcasts. For example, with reverse link interference cancellation

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[53] The concept of sharing is growing in popularity – the FCC, NTIA and the White House all "touted the concept at CTIA's wireless industry conference" this past month, recognizing that spectrum sharing may foster broadband deployment. *See* Eliza Krigman, *Administration Pushes Spectrum Sharing*, PoliticoPro (May 11, 2012, 5:31 AM EST) https://www.politicopro.com.

[54] *See* discussion *infra* Section V(b)(i).

("RLIC") and multiuser detection,[55] it may be possible for satellite handsets to be used in the exact area that is served by a terrestrial system operated by a different licensee. Given the advances in technology, it is imperative that the Commission reopen the technology record to examine whether the current technology available to the satellite operator would allow a complete separation of the terrestrial license from the satellite operator.

Finally, since the satellites being used by TerreStar and DBSD are essentially "bent pipes," satellite and terrestrial operators will be able to coordinate their systems in a way that was not originally contemplated when the Commission decided that sharing was not feasible.

In any event, it is undeniable that satellite and terrestrial operators can share adjacent spectrum since each would have appropriate interference protection through appropriate interference limitations on their transmitters.[56] Further, with spot beams, as discussed in greater detail below,[57] the zone of no service between a terrestrial system and a satellite system in an area adjacent to it would be relatively small and would be consistent with existing adjacent terrestrial systems. Accordingly, the proposals outlined by MetroPCS are technically feasible and should be explored by the Commission.

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[55] Multiuser detection allows the handset to take interfering signals and essentially to feed the signal back into the processor to cancel out the interfering signal. This technique currently is available and could be used to suppress the unwanted terrestrial signal from the handset, allowing the handset to be able to detect the satellite signal even in areas where the spectrum is being used by a separate terrestrial licensee. *See generally* ANDREAS F. MOLISCH, WIDEBAND WIRELESS DIGITAL COMMUNICATIONS, (Prentice Hall 2001).

[56] *See infra* at (V)(b)(i).

[57] By using this technology, the satellite operator is able to limit the interference of the satellite to terrestrial systems. *See* discussion *infra* Section V(b)(i).

IV. THE COMMISSION'S AWS-4 PROPOSAL WOULD GRANT AN UNPRECEDENTED WINDFALL TO THE EXISTING LICENSEE

a. The AWS-4 Proposal Will Result in an Undeserved Windfall for the Existing Licensees

DISH paid approximately $2.8 billion for the acquisition of both TerreStar and DBSD spectrum assignments.[58] The purchase price of the spectrum – which was never auctioned – reflected the value of the spectrum at the time it was purchased – with no co-primary rights for mobile terrestrial use, MSS gating conditions and ATC obligations that were all fully known to DISH at the time of its purchase. DISH was also on notice of the *NBP's* proposals to potentially add a terrestrial component to the 2 GHz MSS band, in exchange for participation in an incentive auction or for appropriate consideration for the significant increase in value that would accompany terrestrial spectrum rights. If the Commission were to implement the AWS-4 Proposal, the 40 MHz of 2 GHz MSS spectrum would vastly increase in value, thus giving DISH an unwarranted and unprecedented windfall.

i. The Grant of Terrestrial-Only Licenses to the Existing 2 GHz MSS Licensees, and the Lack of Any Obligation to Provide MSS Service, Vastly Increases the Value of the 2 GHz MSS Spectrum

Spectrum, like any commodity, is valued differently based on a number of characteristics. When the 2 GHz MSS spectrum was purchased by DISH, DBSD and TerreStar were obligated to operate under stringent build-out and other conditions imposed by the Commission. The conditions included the requirement to provide MSS service, with the ability to provide limited terrestrial service via ATC rights only if stringent gating criteria were met by the licensees, and

[58] Anton Troianovski & Amy Schatz, *FCC Deals a Setback to Dish's Wireless Network Plans*, WALL ST. J., Mar. 5, 2012, at B3, *available at* http://online.wsj.com/article/SB10001424052970203753704577257873788617682.html.

with the clear directive that any terrestrial use of the spectrum would clearly be ancillary to satellite services. Specifically, in order to ensure that such terrestrial use was ancillary to the MSS service, the Commission applied (a) an integrated service requirement and (b) a spare satellite requirement to the 2 GHz MSS licensee's ability to provide MSS/ATC services.[59] These conditions were imposed as a result of prior Commission public interest determinations and therefore should not be viewed lightly. Due to these conditions, the purchase price of the 40 MHz of spectrum acquired by DISH was considerably lower than it would have been had the licenses allowed for unfettered terrestrial broadband use. Not surprisingly, these are the very same conditions that DISH had sought a waiver of after acquiring the spectrum.[60]

Integrated Service Offering: Pursuant to the FCC's rules, in order to establish an integrated service offering required to provide MSS/ATC service, the applicant must affirmatively demonstrate that: (i) the MSS/ATC operator will use a dual-mode handset that can communicate with both the MSS network and the MSS/ATC component to provide the proposed ATC service; or (ii) other evidence establishing that the MSS ATC operator will provide an integrated service offering to the public.[61] This requirement was established to "help ensure that MSS remains first and foremost a satellite service and that the terrestrial component remains ancillary to the primary purpose of the MSS system."[62] Removing this condition would allow this spectrum to be used solely for terrestrial service and would eliminate the requirement that

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[59] In addition, the Commission required the MSS operator to provide MSS service over the entire licensed area. In other words, a licensee had to provide MSS even in areas in which it was using ATC authority.

[60] New DBSD Satellite Service G.P., Debtor-in-Possession, and TerreStar Licensee Inc., Debtor-in-Possession, Request for Rule Waivers and Modified Ancillary Terrestrial Component Authority, *Public Notice*, DA 11-1555, IB Docket No. 11-149 (rel. Sept. 15, 2011) ("*DISH Waiver Public Notice*").

[61] 47 CFR § 25.149(b)(4).

[62] *ATC Report and Order*, 18 FCC Rcd 1962, ¶ 88.

spectrum be used for satellite services or be "ancillary" to a satellite service. However, in direct contradiction of this intent, under the Commission's AWS-4 proposal, the existing MSS licensees will have an unfettered right to forego all MSS service and provide solely terrestrial mobile wireless services – and may even let its MSS license expire without any consequences – due to the grant of the separate terrestrial licenses. As shown below, the increase in value due to the removal of these restrictions would be almost three times greater when compared to recent AWS spectrum sales, and ten times greater when compared to purchases of 700 MHz spectrum.

Spare Satellite Requirement: In addition, the FCC rules require that Operational GSO MSS/ATC systems maintain a spare satellite on the ground within one year of commencing operations and launch it into orbit during the next commercially reasonable launch window following a satellite failure.[63] The public interest consideration behind this condition was that the Commission felt that the requirement "strikes an appropriate balance between reinforcing the licensee's commercial and legal incentives to provide continuous service and allowing sufficient time for the licensee to repair or replace satellites that have failed."[64] Therefore, the Commission found the availability of a ground spare satellite to be important for the purposes of ensuring continuity of satellite coverage.[65] Again, under the Commission's AWS-4 proposal, this condition is eliminated, allowing the existing MSS licensee to provide terrestrial-only service with no conditions – and in fact, no obligation to provide any MSS service at all. Ironically, this step is being taken at a time when the continuing need for improved and expanded broadband service in rural areas – the one place where mobile satellite has viability as proven by Hughes

[63] 47 CFR § 25.149(b)(2). In addition, all MSS ATC licensees must report any satellite failures, malfunctions or outages that may require satellite replacement within ten days of their occurrence.

[64] *ATC Report and Order* at ¶ 84.

[65] *Id.* at ¶ 78.

Communications[66] – has been repeatedly cited.[67] Since the cost of constructing the satellite and launching it can cost $250 to $300 million, the elimination of this requirement would accrue another $250 to $300 million in value with no commensurate recovery of the value by the Commission.[68]

ii. Comparisons of Similar Nationwide Terrestrial Spectrum Demonstrate the Substantial Windfall that DISH Would Receive from the AWS-4 Proposal

As stated above, DISH paid $2.8 billion to acquire the MSS spectrum from both DBSD and TerreStar. However, under the Commission's proposal, not only would DISH avoid fulfilling the stringent conditions that attached to the MSS licenses it purchased, but it would also

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[66] In 2011, Hughes Communications won funding, in part through the broadband stimulus program, to provide satellite broadband service to remote rural customers. Joan Engebretson, *Stimulus Funding for Satellites Brings Broadband to Remote Rural Areas*, Connected Planet (Jan. 13, 2011) http://connectedplanetonline.com/independent/news/Stimulus-funding-for-satellites-brings-broadband-to-remote-rural-areas-0113/; Ironically, Hughes Communications was recently purchased by DISH (EchoStar). *See* Claire Atkinson, *DISH Owner Ergen Adds Hughes to Empire*, N.Y. POST (Feb. 14, 2011) http://www.nypost.com/p/news/business/ergen_omics_qesbVdAJbB0pd69fCNUQ2N.

[67] The Commission has found that MSS "will . . . complement wireless service offerings through expanded geographic coverage" and has found that satellites "may offer cost advantages over wireline access in rural and remote areas, where sparsely populated areas cannot provide the economies of scale to justify the deployment costs of wireline networks." *ATC Report and Order*, ¶ 45 (citations omitted). Other interested parties have agreed with this assertion as well. *See e.g.*, ICO Comments in IB Docket No. 01-185, ET Docket No. 95-18, pg. iii (filed Oct. 22, 2001) (stating that "[a] revitalized MSS industry is virtually the only economically and technically efficient way to bring broadband service to rural Americans, and will arm public safety, military, maritime, and recreational users with primary redundant communications services that are even more essential in today's environment."); Boeing Reply Comments in IB Docket No. 01-185, pg. 4 (filed Nov. 13, 2001) (arguing that "an integrated ATS will permit MSS subscribers, rural and maritime, to benefit from larger market economies of scale for equipment, service offerings and geographic coverage."); Globalstar Reply Comments in IB Docket No. 01-185, ET Docket No. 95-18, pg. 3, n.5 (filed Nov. 13, 2001) ("As the record in this docket makes clear, MSS can extend and complement terrestrial mobile phone services and can serve a number of specialized markets such as rural areas. . . .").

[68] However, the Commission can also take this opportunity to explore other services that may be provided by the satellite and therefore recover a portion of the cost of satellite construction and launch.

be the holder of new 40 MHz nationwide spectrum licenses available for terrestrial use - for that same $2.8 billion – with no conditions save minimal build-out requirements.[69] With the U.S. population at approximately 310 million, this means that the DISH 40 MHz of spectrum, which consists of 12.4 billon MHz*POPs, was acquired by DISH for approximately **$0.23 MHz*POP**. This is truly a bargain basement price if the Commission grants DISH the additional license rights proposed in the *NPRM* when one considers recent valuation benchmarks for terrestrial broadband spectrum:

- 700 MHz B Block licenses (the only paired licenses in Auction No. 73 with no interference issues and no conditions) were priced on average at **$2.68 per MHz*POP.**[70] Using this valuation, the 40 MHz of spectrum acquired by DISH would now be worth **$33.2 Billion**.

- Verizon paid $3.9 billion for the spectrum from its proposed transaction with SpectrumCo and Cox, consisting of 5.74 billion MHz*POPs, priced at **$0.68 per MHz*POP**.[71] At $0.68 per MHz*POP, the value of the 40 MHz of 2 GHz band spectrum would now be valued at **$8.4 Billion.** (Note, however, that due to the significant benefits accorded to the cable companies from the integrated wireless agency and resale agreements entered into in conjunction with the spectrum transactions, and the cable companies comments that they would not have sold the spectrum without such agreements, it would be fair to say that Verizon would have had to pay a much higher price for the spectrum-only transaction without those collateral agreements.)

- Verizon Wireless paid $4.6 billion for only 22 MHz of nationwide terrestrial spectrum (6.8 billion MHz*POPs) in the 700 MHz Auction – spectrum that came with additional Open Internet conditions. This correlates to **$0.68 per MHz*POP** and would place the DISH 40 MHz again at **$8.4 billion**.

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[69] The build-out requirements are not stringent and do not ensure a nationwide network in the near term. Instead of increasing the build-out requirement, MetroPCS believes the public interest will be better served by taking a portion of the spectrum back and auctioning it.

[70] *See* Anna-Maria Kovacs, *The Merits of Open and Competitive Spectrum Auctions*, FierceWireless, (Mar. 13, 2012), http://www.fiercewireless.com/story/merits-open-and-competitive-spectrum-auctions/2012-03-13.

[71] Roger Cheng, *Verizon Dangles Mobile Video as Hook for its Cable Deal*, CNET (Mar. 30, 2012) http://news.cnet.com/8301-1035_3-57406944-94/verizon-dangles-mobile-video-as-hook-for-its-cable-deal/?tag=txt;title.

All of these benchmarks clearly indicate that DISH would be receiving a significant windfall under the Commission's proposal. While the Commission does propose additional build-out requirements, the public benefits and the cost of these requirements are substantially less than the value increase accorded to DISH. Further, to the extent that DISH ultimately sells the spectrum to one of the existing national carriers, rather than build it, the build-out requirements would be of limited value since there would not be an additional nationwide network. Accordingly, this minimal build-out condition in exchange for the significant increase in value violates the important principle set forth in the Section 309(j)(3)(c) of the Communications Act that the Commission should "recover…for the public a portion of the value of the public spectrum resource made available for commercial use and avoidance of unjust enrichment." By not paying an appropriate price for the enhanced rights in this spectrum, the American public would be harmed. Based on what has been paid for similar spectrum, the government clearly is entitled to consideration in exchange for this enhanced, less-encumbered spectrum. Such funds could be used to further stimulate the wireless ecosystem and contribute towards finding a solution for the spectrum crunch.[72] In contrast, under the Commission's proposal, DISH will receive the precise windfall that the *NBP* recommended against, and will have no substantial incentive to offer any portion of its spectrum up for auction.

b. The Existing Licensees Have Not Provided Any Commitments to Build and/or Operate a Wireless Network Over its Existing Spectrum

The Commission believes that modifying the existing licensees' authority to allow for the operator to offer terrestrial operations governed under Part 27, will "enhance the licensee's

[72] As White House tech aide Tom Power stated, "[w]e've got teams working within every agency; I get together with them every couple of weeks . . . its consuming a lot of resources." *See* Eliza Krigman, *W.H. Working Closely with Carriers on Spectrum*, PoliticoPro, (May 9, 2012, 5:43 PM EST) https://www.politicopro.com.

ability to offer high-quality, affordable terrestrial wireless broadband services, while retaining the right to offer MSS using the same spectrum; spectrum that is already licensed nationwide on an exclusive, primary basis for MSS."[73] MetroPCS agrees that the 2 GHz MSS license would certainly be enhanced – with the FCC providing the existing licensees a valuable new terrestrial nationwide license, *for free*. Yet, the Commission has gotten no firm, concrete commitment from DISH that it is willing to construct and operate a nationwide wireless network. When the existing licensees sought to acquire the 40 MHz of MSS from bankrupt TerreStar and DBSD, MetroPCS urged the Commission to formally recognize that DISH's public interest statement submitted with its application was vague and required additional detail regarding DISH's plans for the spectrum.[74] MetroPCS argued that DISH failed to provide the detail necessary for the Commission, as well as interested parties, to fully understand how and when DISH planned to use this valuable spectrum.[75] Specifically, DISH lacked detail regarding its plans to obtain the necessary technical, operational and business expertise to construct and operate a terrestrial network, as well as how it planned to compete against the nationwide carriers. Regrettably, the Commission failed to take any concrete steps to address MetroPCS' concerns.

Worst of all, DISH recently stated that if it did not receive the waivers it requested of certain MSS conditions, then it might not necessarily build at all.[76] This is not the statement of an operator committed to construct and operate on its presently granted licenses in the public interest. Further, given the minimal build-out requirements proposed by the Commission and the

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[73] *NPRM* at ¶ 78.

[74] *See e.g.*, Petition of MetroPCS Communications, Inc. to Require Further Public Interest Showing or, the Absence of Such a Showing, to Deny the DISH Network Corporation Applications, in IB Docket No. 11-150 (filed Oct. 17, 2011) ("*MetroPCS DISH Petition*").

[75] *MetroPCS DISH Petition*.

[76] Bill Ray, *FCC Denies DISH a Fast-Track Waiver for Grounded Network*, THE REGISTER (Mar. 5, 2012) http://www.theregister.co.uk/2012/03/05/dish_waiver/.

three-year timeframe for DISH to meet them, the Commission has no assurance that the grant of this additional authority will cause DISH to build-out as opposed to just selling the spectrum due to its increased value. This provides yet another reason DISH does not deserve a windfall via 40 MHz of flexible use terrestrial spectrum, for no consideration to the public.

V. IN ORDER TO PROMOTE COMPETITION AND PREVENT A WINDFALL TO THE EXISTING LICENSEES, METROPCS PROPOSES THAT A PORTION OF THE 2 GHZ MSS SPECTRUM BE AUCTIONED FOR TERRESTRIAL USE

The existing licensees' windfall that would result from the Commission's AWS-4 proposal would come not only at the expense of the U.S. Treasury and American tax payers, but would also withhold the spectrum from other providers that are prepared to put the spectrum to immediate use to mitigate existing spectrum constraints. Instead of allowing such prime spectrum to lay fallow for yet another significant period of time or to be sold in a secondary markets transaction with DISH reaping the benefits, the Commission should take this opportunity to promote competition in the wireless industry by allowing competitive carriers the opportunity to acquire additional spectrum at auction, while at the same time granting the existing licensee increased flexibility to provide wireless services.[77]

Therefore, MetroPCS submits the following two proposals for the Commission's consideration: (1) that the existing licensees relinquish 20 MHz of spectrum in exchange for being granted separate terrestrial licenses and increased flexibility in the use of its remaining 20 MHz of spectrum. The returned 20 MHz of spectrum would then be auctioned by the

[77] Indeed, competition in the wireless industry is in the public's best interest. As stated by Commissioner Mignon Clyburn, "the best way to serve the public interest is to promote robust competition throughout all sectors of an industry. The greater the ability of consumers to switch to other viable competitors, the greater the incentives for competitors to offer consumers better services and discipline each other's behavior." *See* Eliza Krigman, *Clyburn: Competition Lessens need for Regulation*, PoliticoPro (May 8, 2012, 10:00 PM EDT) https://www.politicopro.com.

Commission for use by competitive carriers to be put to its highest and best use. Or, in the alternative, (2) the existing licensees should relinquish 30 MHz of spectrum in the top 100 MSAs; keep 10 MHz for flexible use without restrictions in those areas and retain the 40 MHz of spectrum with increased flexibility in the remainder of the country.

a. The Existing Licensees Should Relinquish 20 MHz of the 2 GHz MSS Spectrum in Exchange for Terrestrial Rights on the Remaining 20 MHz of its Spectrum

As stated above, if the AWS-4 proposal is adopted, DISH would have paid $2.8 billion for a 40 MHz nationwide terrestrial license, priced at approximately $0.23 MHz*POP, for 12.4 billion MHz*POPs. The value of a nationwide terrestrial license, if granted to DISH, would, at an absolute minimum, be more than double and could be as much as ten times the value of the 2 GHz MSS band spectrum DISH acquired. Therefore, MetroPCS recommends that rather than allow DISH to retain all 40 MHz of its spectrum, the Commission should take back 20 MHz of this spectrum, allowing the other 20 MHz to remain with DISH, and abide by its AWS-4 proposal to modify the license of the spectrum to allow for terrestrial operations governed under Part 27 in this part of the 2 GHz Band. The Commission may then reallocate the recaptured 20 MHz portion primarily for terrestrial wireless services and auction it off using its proposed bidding approach. As stated above, such a bidding framework will increase competition and stimulate the wireless ecosystem, providing spectrum to those who need it most. This 20 MHz of nationwide spectrum would represent an important start toward the 300 MHz down payment recommended to be allocated for mobile wireless services by the *NBP*. This spectrum is particularly useful since it is adjacent to AWS-1 and could be put to use in relatively short order. As new spectrum is made available for auction, new entrants may participate due to a tiered

bidding credit approach, ultimately resulting in increased innovation and advanced technology – both positive results of competition.[78]

The auction would ensure that the American public receives fair consideration for this spectrum, with most of such funds going into the federal treasury at a time of severe deficits; rather than into the pocket of the existing licensees. In doing so, the Commission will have granted additional flexibility to the existing 2 GHz licensees for providing terrestrial mobile wireless services, promoted competition in the wireless industry and eased the spectrum crunch by freeing up 20 MHz of spectrum for auction. This approach would be a win-win-win.

b. Alternatively, in the Top 100 MSAs, the Existing Licensees Should be Required to Relinquish 30 MHz of Spectrum

Alternatively, MetroPCS recommends that, in the top 100 MSAs, DISH be required to relinquish 30 MHz of its 40 MHz of spectrum in the 2 GHz band. Under this proposal, DISH will retain the remaining 10 MHz of spectrum free of restrictions in these areas, as well as the

[78] To the extent that the Commission holds an auction for spectrum in the 2 GHz band, then the Commission should provide "small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent." *See NPRM* at ¶ 87. MetroPCS has long advocated for its own proposed "Broadband Incentive Discount ("BID") program, where an auction applicant would receive a sliding scale of bidding discount credits in inverse proportion to the amount of attributable spectrum the applicant holds in the geographic area covered by a particular license. Such a framework of this nature would help new entrants or entities that have overcome substantial disadvantages, to compete against the large incumbents. This bidding approach will foster new and increased competition in the wireless marketplace, and will further alleviate the spectrum crisis for many small, rural and mid-sized carriers. Traditionally, bidding credits have been based on business size and/or ownership characteristics. However, a downside with using business size as a characteristic is that the provision of telecommunications services is a capital intensive business. This leads to a paradox where companies with small amounts of revenue bid on licenses which, if they win, would require many times the amount paid for the licenses to actually deploy and operate. The Commission's proposal, however, would help fix this inconsistency. Rather than according designated entity ("DE") credits based upon an applicant's size, credits should be given to applicants in inverse proportion to the amount of attributable spectrum that the applicant holds in the auctioned license territory.

full 40 MHz of spectrum outside of the top 100 MSAs. As the Commission knows, the spectrum shortage is particularly acute in the major metropolitan areas. This proposal would allow the Commission to have its cake and eat it too by allowing DISH increased flexibility to offer terrestrial services in competition with other carriers and to auction spectrum to other carriers who also need this spectrum in the major metropolitan areas. Finally, this would allow DISH significant amounts of spectrum to serve rural areas where the need for satellite based broadband services is greatest.[79] MetroPCS recommends that the relinquished spectrum be reallocated for mobile wireless services and be assigned by auction as soon as possible as doing so would further promote broadband deployment in this underutilized band. In previous proceedings, various commenters have supported "reallocating a portion of the current 2 GHz [MSS] band for flexible terrestrial use due to the lack of MSS activity at 2 GHz"[80] and will likely do the same in this proceeding.

This proposal provides great flexibility to DISH by allowing it to offer satellite services only, terrestrial services only, or both. Allowing DISH to maintain 40 MHz of spectrum outside of the top 100 MSAs would enable it to fulfill the Commission's initial policy objectives with respect to the 2 GHz MSS spectrum. Indeed, MetroPCS' proposal fits squarely with prior Commission policy, which stated an intention "for MSS to provide communications in areas where it is difficult or impossible to provide communications coverage via terrestrial base stations, such as remote or rural areas and non-coastal maritime region, and at times when

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[79] *See supra* footnote 67 and accompanying discussion.

[80] Reply Comments of Sprint Nextel Corporation NBP Public Notice # 30, in GN Docket No. 09-51 (filed Jan. 27, 2010); *see also* MetroPCS PN # 6 Reply Comments in GN Docket No. 09-51, at 2-8 (filed Nov. 13, 2009); AT&T PN # 6 Reply Comments in GN Docket No. 09-51, at 12-13 (filed Nov. 13, 2009); CTIA PN # 6 Reply Comments in GN Docket No. 09-51, at 15-16, 28-29 (filed Nov. 13, 2009).

coverage may be unavailable from terrestrial-based networks such as natural disasters."[81] Under this MetroPCS proposal, DISH will still be able to provide MSS services (and terrestrial services) with 40 MHz outside of the major metropolitan areas, such as "remote or rural areas" and may also be used, albeit on a more limited basis, inside the major metropolitan areas. In addition, DISH will also have a 10 MHz nationwide terrestrial license, which it could use to provide mobile wireless services. This proposal again is a win-win-win, as it would allow the Commission to auction spectrum in major metropolitan areas where the spectrum crunch is most critical, allow the Commission to obtain due consideration for granting additional terrestrial flexibility to DISH, and promote its original objective of providing coverage to difficult to reach areas, by allowing DISH to maintain 40 MHz of spectrum outside of the top 100 MSAs and to have increased flexibility to operate over such spectrum.

i. The Spectrum May be Shared Geographically if Exclusion Zones are Implemented Via Spot Beams

This geographic "spectrum sharing" proposal of MetroPCS addresses the Commission's query as to whether "same-band, separate-operator sharing is possible – between AWS-4 licensees and an MSS licensee's satellite and ATC operations." The answer is, "Yes!" Sharing can be accomplished in designated geographic areas through the use of satellite spot beams. Spot beams are well known to the prior 2 GHz MSS license holding entities. Before filing for bankruptcy, TerreStar, in preparation for the launch of its hybrid satellite and terrestrial smartphone service, had been testing spot beam technology that would allow consumers to switch to satellite service when out of range of cellular service.[82] Dennis Matheson, the Chief

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[81] *NPRM* at ¶ 3.

[82] *See* e.g. *TerreStar Completes Ground Based Beam Forming Test*, Satellite Phone Blog, (posted Mar. 23, 2010) http://www.phone-satellite.blogspot.com/2010_03_01_archive.html; Jeff Epstein, *TerreStar – Year in Review*, SatMagazine (December 2009) *available at*

Technology Officer for TerreStar, explained that "TerreStar's spot-beam technology, coupled with Ground Based Beam Forming, allows TerreStar to allocate power and spectrum to situation-specific incidents, ensuring capacity when and where it is needed."[83] This is precisely what will permit interference-free sharing of the 2 GHz band in this situation. With the use of spot beams, the existing licensee will be able to control the use of its spectrum to avoid specific geographic areas – specifically, in this instance, to create preclusion zones in major metropolitan areas. With spot beam technology, third parties that have acquired the relinquished 2 GHz spectrum in the major metropolitan areas will be able to operate in the spectrum without compromising the operations of nearby existing and future MSS licensees.[84] Further, with the interference limiting technologies that are possible today, the preclusion areas between adjacent networks will be minimal – and may in fact be no greater than the preclusion zones resulting from adjacent terrestrial licensees today. Accordingly, no significant area of the United States will not be able to be served by either the terrestrial or satellite networks via the 2 GHz bad.

MetroPCS notes that its proposal to require DISH to use spot beams to allow third parties to share spectrum in major metropolitan areas is not inconsistent with prior Commission findings on this matter. All the Commission has said with respect to MSS/terrestrial spectrum sharing is that "no two operators are likely to succeed in organizing themselves to manage the highly

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http://www.satmagazine.com/cgi-bin/display_article.cgi?number=474684532; *TerreStar Announces Ground Based beam Forming Testing Success*, SpaceDaily, (Feb 23, 2010) http://www.spacedaily.com/reports/TerreStar_Announces_Ground_Based_Beam_Forming_Testing_Success_999.html; *Command Center – Dennis Matheson* (Jan. 2010) *available at* http://www.milsatmagazine.com/cgi-bin/display_article.cgi?number=1505720585.

[83] Declaration of Dennis Matheson in support of the *Application of TerreStar Networks Inc., Debtor-in-Possession; and TerreStar License Inc., Debtor-in-Possession and DISH Network Corporation and Gamma Acquisition L.L.C*, Call Signs: S2633; E060430; E070098; E090061; ITC-214-20100513-00194; ITC-214-20100513-00195, Consolidated Application for Transfer of Authorizations, ¶ 5 (Aug. 22, 2011).

[84] *Cf. NPRM* at ¶ 6.

complex coordination process required between both the MSS and the terrestrial component at the same time in the same band in the same region."[85] MetroPCS' spot beam preclusion zone proposal is consistent with this statement, as no spectrum sharing would occur "in the same region" under the MetroPCS approach. Thus, the Commission's prior interference concerns are not triggered.

In addition, the potential interference issues posed by spectrum sharing are illusory in the current circumstances. In the *NPRM*, the Commission applies outdated findings to argue that "granting shared usage of the same MSS frequency band to separate MSS and terrestrial operators would likely compromise the effectiveness of both systems."[86] Such an assertion might have been true in 2003, when MSS licensees appeared to be committed to a truly integrated satellite and terrestrial operation. But, under the Commission's AWS-4 proposal, there is not even a requirement that the existing licensee provide MSS at all – and in fact, it is likely that the only services provided over the 2 GHz spectrum will be using terrestrial networks. Further, recent advancements in interference cancellation technology can mitigate interference between terrestrial and satellite systems to a large extent. The Commission simply cannot justify denying shared use of the spectrum based upon interference concerns generated by a satellite service that may not continue to exist or on outdated technical showings. In any event, MetroPCS believes that spot beams may be used to create exclusion zones to prevent interference between satellite services outside the top 100 MSAs from terrestrial services within the top 100 MSAs.

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[85] *ATC Report and Order*, 18 FCC Rcd 1962, 1993, ¶ 52 (emphasis added).

[86] *NPRM* at ¶ 6 (citing *ATC Report and Order*, 18 FCC Rcd at 2068-69, ¶ 65).

VI. THE COMMISSION HAS THE APPROPRIATE AUTHORITY TO TAKE ACTION ON THE METROPCS PROPOSALS

The Commission has sufficient authority under the Communications Act of 1934 (as amended) (the "Act") to effectuate MetroPCS' proposed license modifications. Commission precedent supports having a licensee provide additional consideration for increased spectrum and/or increased flexibility that vastly increases the value of such spectrum.[87] Indeed, because the *NBP* predated the DISH acquisition of the TerreStar and DBSD licenses, DISH was on notice that an incentive auction or other due consideration for an increase of the value of the spectrum caused by the addition of terrestrial rights could be considered by the Commission. Furthermore, the Commission has substantial authority to take actions to promote spectrum use while reducing interference and, ultimately, that is what the Commission would be doing in this situation.

a. Section 316 Provides Ample Authority to Modify the Existing Satellite Licenses

Specifically, the Commission has the authority to modify licenses pursuant to Section 316(a)(1), which states that "[a]ny station license . . . may be modified by the Commission . . . if in the judgment of the Commission such action will promote the public interest, convenience and necessity."[88] Not only can the Commission rely upon Section 316 from a public interest

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[87] For example, as part of the 800 MHz proceeding, Sprint Nextel was required to make an "anti-windfall" payment to the U.S. Treasury if the value of the five megahertz of former BAS spectrum and the paired spectrum at 1910-1915 MHz that Sprint Nextel was to receive was greater than the costs associated with the 800 MHz realignment and of the BAS transition. *See In the Matter of Improving Public Safety Communications in the 800 MHz Band* et al., in WT Docket No. 02-55 et al. ¶¶ 64, 211 (rel. Aug. 6, 2004) ("*800 MHz Order*"). Furthermore**,** if the Commission does decide to require some form of due consideration from the existing licensees, it may do so pursuant to 4(i). Under this provision, the Commission may require payment to "ensure the achievement of the Commission's statutory responsibility to grant a license only where the grant would serve the public interest, convenience and necessity." *800 MHz Order* at ¶ 76 (quoting *Mtel v. FCC*, 77 F.3d 1399, 1406 (D.C. Cir. 1996)).

[88] 47 U.S.C § 316(a)(1).

standpoint, but there is also prior Commission and Court precedent that further supports this authority.

The Commission previously has relied upon Section 316 in a similar situation involving Nextel. The Commission provided Nextel with spectrum through a Section 316 license modification in exchange for Nextel relinquishing other spectrum in return.[89] This modification was triggered as a result of interference in the 800 MHz band that affected public safety operations.[90] A solution to this interference involved the use of spectrum outside of the band, and therefore under public interest considerations, the Commission found authority in Section 316 to modify Nextel's licenses. However, as a result of the modification, the Commission also required Nextel to relinquish the spectrum that was causing the interference. This situation is very similar, and would still involve the granting of significant flexibility to the existing licensee – while ensuring that such licensee is not receiving a significant windfall.

Furthermore, the Commission has relied on Section 316 to uphold license modifications where licensees are relocated to new spectrum outside of the auction process. Although this has traditionally applied to spectrum swapping, the Commission recognizes that this same authority and analysis can be used with respect to moving licensees to unassigned spectrum.[91] Specifically, the Commission previously relied on this authority to assign open spectrum to Motient Services in an effort to replace previously assigned spectrum that Motient was assigned due to the inability of the U.S. to coordinate internationally – thus leaving the spectrum incapable of being built out. The Commission reasoned that "it was in the public interest to

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[89] Nextel also had to pay costs associated with reconfiguration of the band at issue – the 800 MHz band. *See generally 800 MHz Order*.

[90] *800 MHz Order* at ¶ 63.

[91] *Id.* at ¶ 67.

ensure that the existing MSS licensee was afforded sufficient spectrum to provide a viable service to remote and sparsely populated areas expeditiously, before opening up this spectrum to additional applications."[92]

Finally, the D.C. Circuit has also affirmed the Commission's authority under Section 316. Specifically, it has held that license modifications under Section 316 "do not have to be consensual, that license holders may be moved on a service-wide basis, without license-by-license consideration, and that eliminating harmful interference is an acceptable basis for ordering license modifications."[93]

The above precedent is directly applicable to MetroPCS' proposals, which seek to prevent a windfall to the existing licensees – in much the same manner as the Commission's actions in the Nextel proceeding. As discussed above,[94] the spectrum crunch is squeezing the ability of many carriers to provide competitive services to consumers. Spectrum is the lifeblood of the wireless telecommunications industry and to ensure that it survives, the Commission must take any opportunity to free up spectrum for mobile use. The problem will not go away, and will only get worse due to the increasing sales of spectrum-heavy technology such as smartphones and tablets. As a result of more and more Americans "cutting the cord," reliance on wireless phones has skyrocketed. It is not just reliance on email, and phone calls, but it is a reliance on communications with safety officials, and without access to sufficient wireless services, these individuals will be unable to make emergency phone calls, and be further left behind in the broadband divide. Further, some segments of the United States rely almost exclusively on wireless solutions for Internet access and the spectrum, if made available, would increasingly

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[92] *Id.*

[93] *Id.* at ¶ 65.

[94] *Supra* Section III.

allow that segment to gain the access to the Internet necessary to get jobs, stay connected and better their lives.

b. Section 6402 of the Middle Class Tax Relief Act Provides the Commission With the Authority to Hold Incentive Auctions

As discussed in detail above, MetroPCS' proposals will ensure that DISH does not receive a substantial windfall from its acquisition of unauctioned 40 MHz of 2 GHz MSS spectrum. MetroPCS reiterates that its proposals were designed to provide DISH with appropriate value for the spectrum that it will relinquish to the Commission, and any spectrum it will retain for future use. However, if the Commission finds that there is ample jurisdiction to provide DISH with additional value, then, in the alternative, Congress has provided the Commission with a new tool to ensure that licensees pay the fair value for new flexible use of their licenses: incentive auctions.

Section 6402 of the Middle Class Tax Relief and Job Creation Act provides the Commission with the general authority to hold incentive auctions of any licenses issued by the Commission.[95] Section 6402 dictates that:

> [T]he Commission may encourage a licensee to relinquish voluntarily some or all of the licensed spectrum usage rights in order to permit the assignment of new initial licenses subject to flexible-use service rules by sharing with such licensee a portion, based on the value of the relinquished rights as determined in the reverse auction required by clause ii(I) of the proceeds . . .from the use of a competitive bidding system under this subsection. . . [with] at least two competing licensees participat[ing] in the reverse auction.[96]

This section clearly allows the Commission to hold incentive auctions if at least two licensees would participate in the incentive auction. Here, since the TerreStar and DBSD licenses are held

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[95] Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, §6402, 126 Stat.156, 224 (2012) ("*Middle Class Tax Relief Act*")

[96] *Middle Class Tax Relief Act*, § 6402 (amending § 309(j)(8) of the Communications Act of 1934).

separately by DISH and Gamma Acquisition,[97] the requirement that there be at least two licensees is met. The Commission also has the authority to determine how the amount to be paid is determined. The Commission can set the percentage to be shared not based on the bids received from the two licensees, but rather by determining the amount of additional value that DISH is receiving as a result of increased flexibility. While the Commission under Section 316 could clearly reclaim the spectrum from DISH without any ability to participate in the incentive auction, it does have an alternate route to allow DISH to participate in the auction in order to accord DISH additional revenues to make up for the spectrum which is being reclaimed. In addition, DISH could use this additional money to build-out its network and thus introduce additional competition in to the wireless industry.

VII. IN THE ALTERNATIVE, MSS OPERATIONS SHOULD BE MOVED TO ANOTHER BAND, ALLOWING THE 2 GHZ BAND TO BE USED FOR MOBILE WIRELESS SERVICES

Finally, if the Commission does not adopt MetroPCS' above proposals, then MetroPCS requests it consider an alternative action: move the 2 GHz MSS operations to another spectrum band and reallocate the 2 GHz MSS band solely to terrestrial uses. Ultimately, the top priority of the Commission should be to ensure that more spectrum is made available to mobile wireless carriers for terrestrial use, and moving the existing licensees may allow for that priority to be met. As discussed throughout these comments, the 2 GHz band has been dedicated to MSS use for more than a decade, and yet, to this day, there is little substantial, commercially-viable mobile satellite services being provided to consumers. During this time when spectrum acts as one of the greatest, most influential barriers for service providers – both existing providers and

[97] On March 2, 2012, the Commission granted DISH Network Corporation (DISH) control over the DBSD licenses (IBFS File Nos. SES-T/C-20110408-00424 and -00425), and Gamma Acquisition LLC the authority over the TerreStar licenses (IBFS File Nos. SES-ASG-20110822-00992, -00993, -00994 and ITC-ASG-20110822-00279).

potential new entrants – the Commission must seize the opportunity to take action to ensure the efficient use of any spectrum not being utilized to its fullest capacity.

Such an opportunity lies in the 2 GHz MSS band. The records in various FCC proceedings indicate that wireless carriers have both immediate and long-term needs for spectrum. Further, the 2 GHz MSS band is immediately adjacent to the AWS-1 band, making it particularly attractive for terrestrial mobile use. Therefore the Commission should consider moving the presently authorized MSS operations to higher portions of the band, and reallocating the 2 GHz MSS allocation and auctioning it off for advanced wireless service use in the commercial sector. Notably, the MSS allocation in the 2 GHz band is proximate to the existing AWS-1 band that has been rapidly and successfully commercially deployed by a variety of wireless carriers and the 2 GHz MSS band spectrum could be rapidly deployed if allocated and auctioned. MetroPCS recommends the Commission initiate another rulemaking proceeding to develop a record on appropriate alternative spectrum bands for mobile satellite services, to the extent it accepts this proposal.

VIII. CONCLUSION

MetroPCS applauds the Commission for recognizing that allowing terrestrial operations in the 2 GHz MSS band would remove outdated regulatory barriers that have frustrated the Commission's goal of having actual services provided out of the 2 GHz MSS band. The Commission's previous attempts at remedying this situation – although well-intentioned – have not yet resulted in any service to the public. Therefore, the FCC must not continue in its cycle of modifying the existing licenses in this band to allow for flexibility that produces no results. Specifically, the AWS-4 proposal presented in the *NPRM* should not be adopted, as it will provide a windfall to the existing licensees, not enhance competition, and again, likely not result in the provision of service to the public. Instead, MetroPCS proposes that the Commission

reopen the technical record to consider whether satellite and terrestrial systems can share spectrum and adopt one of the two approaches proposed by MetroPCS which will ensure that the valuable spectrum at issue is utilized in the most efficient matter, by service providers that are immediately prepared to do so.

Accordingly, MetroPCS recommends that DISH be required to relinquish 20 MHz of its 40 megahertz 2 GHz MSS spectrum for reallocation and auction. DISH would then be permitted to keep the remaining 20 MHz which may be licensed for MSS or terrestrial use. Alternatively, DISH should relinquish 30 MHz of 2 GHz spectrum in the top 100 MSAs. In doing so, it would still retain 10 MHz of nationwide spectrum, without restrictions, as well as the full 40 MHz of spectrum to provide satellite or terrestrial services to areas outside the top 100 MSAs. The 30 MHz in these major metropolitan areas that the Commission acquires from DISH should be reallocated to allow for terrestrial mobile wireless services, and auctioned to carriers that will put the spectrum to use immediately. Doing so will help alleviate the spectrum crunch that many wireless service providers have been forced into.

Respectfully submitted,

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