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

In the Matter of	)	
	)	
International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act	)	GN Docket No. 09-47
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act	)	GN Docket No. 09-137

COMMENTS OF FIBERTOWER CORPORATION, THE RURAL TELECOMMUNICATIONS GROUP, INC., COMPTEL, AND SPRINT NEXTEL CORPORATION – NBP PUBLIC NOTICE #6

FiberTower Corporation ("FiberTower"), the Rural Telecommunications Group, Inc. ("RTG"), COMPTEL, and Sprint Nextel Corporation ("Sprint Nextel") (collectively, the "Coalition") submit these Comments in response to the Federal Communications Commission's ("FCC" or "Commission") Public Notice entitled "Comment Sought on Spectrum for Broadband," released on September 23, 2009 in the above-captioned proceeding.[1]

In the *Notice*, the FCC seeks comment on the specific question, "What is the ability of current spectrum allocations to support both the fixed and mobile wireless backhaul market?"[2] The Commission explains that "[s]ufficient backhaul is a key element in the wireless broadband environment," adding that "commenters in various proceedings have noted a pressing need for

[1] *Comment Sought on Spectrum for Broadband – NBP Public Notice #6*, GN Docket Nos. 09-47, 09-51, 09-137, Public Notice, DA 09-2100 (rel. Sept. 23, 2009) ("*Notice*").
[2] *Id.* at 7.

additional cost-effective backhaul capacity . . . ." The Coalition is pleased that the FCC recognizes the importance of fixed wireless backhaul and the need for additional spectrum to provide more cost-effective backhaul solutions, particularly in rural areas. We take this opportunity to attach our "Request for Expedited Consideration" filed on July 14, 2009[3] and submit it for inclusion in the record for this proceeding to highlight the Coalition's longstanding support for using a limited number of vacant channels within the TV Bands "white spaces" spectrum ("TV White Spaces") for licensed, fixed point-to-point backhaul.

Sprint Nextel, FiberTower, RTG, and COMPTEL have filed numerous pleadings in the Commission's TV White Spaces proceeding demonstrating that a new, higher-powered, licensed, point-to-point service in a portion of the TV White Spaces could provide an important tool to reduce the costs of backhaul by as much as 80-90% in rural areas and enhance broadband deployment.[4] Specifically:

- *The favorable propagation characteristics of the TV White Spaces make the bands ideal for backhauling traffic over very long distances (e.g., 50-70 miles and longer) at low cost.*[5]

- *A single 75-mile or longer wireless backhaul link could be constructed at a cost of $100,000 – $200,000 using two small lightweight antennas (but covering the same distance using 3.65 GHz, 6 GHz, or higher frequency spectrum would require as many as four relay towers and a total of 10 six-foot diameter dish antennas, at a cost of $3 million or more).*

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[3] Request for Expedited Consideration filed by FiberTower, RTG, COMPTEL, and Sprint Nextel, ET Docket Nos. 04-186, 02-380 (filed July 14, 2009).

[4] *See, e.g.*, Reply to Oppositions filed by FiberTower, RTG, COMPTEL, and Sprint Nextel, ET Docket Nos. 04-186, 02-380 (filed May 18, 2009); Petition for Reconsideration filed by FiberTower, RTG, COMPTEL, and Sprint Nextel, ET Docket Nos. 04-186, 02-380 (filed Mar. 19, 2009); *Ex Parte* filing by FiberTower, Sprint Nextel, RTG, and COMPTEL, ET Docket Nos. 04-186, 02-380 (filed Oct. 31, 2008); "Optimizing the TV Bands White Spaces: A Licensed, Fixed-Use Model for Interference-Free Television and Increased Broadband Deployment in Rural and Urban Areas," *Ex Parte* filing by FiberTower and RTG, ET Docket Nos. 04-186, 02-380 (filed Oct. 2, 2007).

[5] Distance is directly correlated to different variables, which include and are not limited to: power, signal availability, data throughput, antenna characteristics and locations, and channel placement within the TV White Spaces.

- *TV White Spaces channels are widely available in rural unserved and underserved areas, where 15 to 45 or more channels often lie fallow.*

- *New licensed point-to-point systems could operate in the band without causing harmful interference to incumbent users or recently authorized unlicensed operations.*

- *More than 300 fixed links have already been licensed and installed in the TV Bands under the existing Broadcast Auxiliary Service ("BAS") rules.*

- *The longstanding use of these frequencies for BAS point-to-point links (some of which are 50-80 miles long or more) ensures the off-the-shelf availability of point-to-point equipment well-suited for backhaul use in these channels.*

In light of these substantial benefits, FiberTower, RTG, COMPTEL, and Sprint Nextel have asked the Commission to facilitate and expedite the deployment of broadband services, primarily in rural unserved and underserved areas, by designating or permitting the use of six vacant channels from the numerous vacant channels in rural areas for Part 101-type licensing of fixed wireless operations. (The Coalition also proposed fixed wireless licensing in any vacant channels third or greater adjacent in any market, where they exist.) As noted previously, this proposal will not provide a solution for all of the special access or backhaul problems (or eliminate the need for the FCC to take separate action on pending special access issues). Nevertheless, it will provide an urgently needed, cost-effective tool for affordable "middle mile" backhaul for wireless carriers and Internet service providers in rural areas, with a dramatic cost savings compared to other backhaul options available for providing wireless broadband to remote communities.

Therefore, the Commission should act quickly on this pending proposal to license new fixed, point-to-point services in the TV White Spaces.

Respectfully submitted,

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October 23, 2009

BY ELECTRONIC FILING

July 14, 2009

Chairman Julius Genachowski
Commissioner Michael J. Copps
Commissioner Robert M. McDowell
Marlene H. Dortch, Secretary

Federal Communications Commission
445 12th Street, SW
Room TWA325
Washington, DC 20554

Re: Request for Expedited Consideration
ET Docket Nos. 04-186, 02-380

Dear Ms. Dortch:

FiberTower Corporation ("FiberTower"), the Rural Telecommunications Group, Inc. ("RTG"), COMPTEL, and Sprint Nextel Corporation ("Sprint Nextel") (collectively, the "Petitioners") hereby submit this Request for Expedited Consideration of their Petition for Reconsideration[1] of the Commission's *Second Report and Order and Memorandum Opinion and Order* ("*Second R&O*") in the above-captioned proceeding.[2]

In the Petition, the Petitioners asked the Commission to facilitate and expedite the deployment of broadband services, primarily in rural unserved and underserved areas, by reconsidering its failure to provide for limited fixed, licensed use of some of the numerous

[1] Petition for Reconsideration filed by FiberTower, RTG, COMPTEL, and Sprint Nextel, ET Docket Nos. 04-186, 02-380 (filed Mar. 19, 2009) ("Petition").
[2] *Unlicensed Operation in the TV Broadcast Bands*, Second Report and Order and Memorandum Opinion and Order, 23 FCC Rcd 16807 (2008) ("*Second R&O*").

unused portions of the broadcast television spectrum ("White Spaces") for wireless backhaul. Subject to the terms noted in the following paragraphs, the Petitioners proposed that the Commission designate or permit the use of six vacant channels from the numerous vacant channels in rural areas for Part 101-type licensing of fixed wireless operations (in addition to the permitted unlicensed operations). This approach provides an urgently needed solution for affordable "middle mile" backhaul for wireless carriers and Internet service providers in rural areas.[3] The Petitioners also proposed fixed wireless licensing in any vacant channels third or greater adjacent in any market, where they exist.[4]

Due to the recent release of a Notice of Funds Availability ("NOFA") by the National Telecommunications and Information Administration ("NTIA") and the Department of Agriculture's Rural Utilities Service ("RUS"), there is now a critical need for the Commission to act immediately to permit use of the White Spaces to provide dramatically more cost-effective backhaul solutions, thereby facilitating the goals of the broadband stimulus funding programs. As detailed below, the Commission can act expeditiously, through an order, on the narrow fixed, licensed use proposal raised in the Petition. Such action would help spur broadband deployment without any negative impact on the other reconsideration petitions involving more complex, controversial, and technical issues related to the White Spaces.

The Prioritization of Nationwide Broadband Deployment Greatly Increases the Urgency for Affordable Backhaul Solutions, Particularly in Rural Areas.

The Petition explained the new circumstances that have heightened the need for swift Commission action.[5] After the Commission adopted the *Second R&O* on November 4, 2008, the United States economy continued to decline significantly. Congress and the new Obama Administration recognized the need for quick stimulative action to stem the decline and passed the American Recovery and Reinvestment Act of 2009 in March ("ARRA").[6] Importantly, the ARRA reflects an assessment by Congress and the Administration that the prompt expanded deployment of broadband throughout the nation is an important component in the recovery from the current economic recession and for long-term economic growth. The ARRA provides over $7 billion to expand broadband availability, especially in unserved and underserved areas, where the need for backhaul is the greatest.[7] In addition, the ARRA requires the Commission to develop a national broadband strategy by February 2010.[8]

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[3] Petition at 7.

[4] *Id.* at 8. The vast majority of such channels are located outside of urban and suburban markets.

[5] *Id.* at 4.

[6] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) ("ARRA").

[7] *See id.* at Division A, Titles I and II.

[8] *Id.* § 6001(k). Other recent legislation also demonstrates the importance that Congress places on broadband deployment. *See* Broadband Data Improvement Act of 2008, Pub. L. No. 110-385, 122 Stat. 4096 (codified at 47 U.S.C. §§ 1301-1304); Food, Conservation, and Energy Act of 2008, Pub. L. No. 110-246, 122 Stat. 1651 § 6112 (Jun. 18, 2008) (requiring the FCC and USDA to submit a report to Congress recommending a comprehensive rural broadband strategy).

The timelines that Congress mandated for the ARRA's Broadband Technologies Opportunities Program ("BTOP") and Broadband Initiatives Program ("BIP") underscore the compelling need for expedited treatment of the Petitioners' narrow proposal. The RUS and NTIA recently released rules and application procedures for their BIP and BTOP funding programs.[9] Under these rules and procedures, the first round of applications is due August 14.[10] RUS and NTIA intend to announce the first round of awards starting on or about November 7, 2009.[11] Of note, up to $1.2 billion in BTOP funds have been allocated to fund broadband infrastructure projects – including middle mile projects – and up to $800,000,000 in BIP funds are available specifically for loans or loan and grant combinations for middle mile infrastructure projects.[12]

This specific focus on funding middle mile projects under both programs reflects the lack of affordable backhaul to (and middle mile facilities in) underserved and unserved areas, which has emerged as a major theme and obstacle to broadband deployment in these areas. During NTIA's recent public BTOP meetings, for example, participants called middle mile the "key issue";[13] a "critical component";[14] "one of the biggest challenges";[15] and a "barrier to entry."[16] Other participants highlighted the significant costs associated with obtaining adequate backhaul services.[17] Likewise, in the Commission's Rural Broadband Strategy proceeding, a diverse array of commenters also expressed the need for additional, affordable backhaul solutions to facilitate

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[9] Notice of Funds Availability, Rural Utilities Service and National Telecommunications and Information Administration, (rel. Jul. 1, 2009) ("*NOFA*"), *available at* http://www.ntia.doc.gov/; *see also* 74 Fed. Reg. 32545 (Jul. 8, 2009).

[10] *NOFA* at 2.

[11] *Id.* at 73. RUS intends to schedule the closings within 60 days of award announcement. *Id.* Subsequent application rounds will commence later this year and in spring 2010. In addition, under the ARRA, BTOP-funded applicants must have their systems substantially completed within two years of receiving funding. ARRA § 6001(d)(3).

[12] *NOFA* at 24, 25, 42. The *NOFA* defines a "middle mile project" as "a broadband infrastructure project that does not predominantly provide broadband service to end users or to end-user devices, and may include interoffice transport, backhaul, Internet connectivity, or special access." *Id.* at 21.

[13] Oral comments of Gaylen Updike, Telecommunications Development Director, Government Information Technology Agency, State of Arizona, at the NTIA/RUS BTOP public meeting, March 18, 2009, Session 2.

[14] Oral comments of Evelyn Jerden, CPA, Lynch Interactive Communication Technology, at the NTIA/RUS BTOP public meeting, March 18, 2009, Session 2.

[15] Oral comments of an unidentified Phoenix-based ISP provider, at the NTIA/RUS BTOP public meeting, March 18, 2009, Session 2.

[16] Oral comments of John Lucas, Chief Information Officer, Graham County, at the NTIA/RUS BTOP public meeting, March 18, 2009, Session 2.

[17] *See, e.g.*, Oral comments of attendees at the NTIA/RUS BTOP public meetings: Kelly Bonnham (representative of a rural last mile and backhaul provider), March 19, 2009, Session 3 ("We pay on some of our networks when we get rural service from other carriers as much as $700 a megabit for backhaul."); Mark Feest, Director of External Affairs for CC Communications, Fallon, Nevada, March 17, 2009, Session 3.

broadband expansion in rural areas.[18] Addressing these comments in its Report on a Rural Broadband Strategy, the Commission itself summed up the plight of rural providers searching for affordable backhaul capacity:

> Access to adequate and affordable "middle-mile" broadband facilities . . . is a necessary precursor to a provider's being able to deploy broadband services to its customers. . . . [E]ven when the last-mile provider acquires access to adequate middle-mile facilities, that access may be prohibitively expensive. Consequently, backhaul transport costs in rural areas can be significantly higher than for networks in other areas.[19]

Commerce Department officials have expressed the goal of achieving the most cost-effective use of ARRA funds. To ensure an optimal use of ARRA funds for middle mile infrastructure projects, the Commission should take action to make White Spaces spectrum available for more affordable backhaul solutions as soon as possible. The ability of wireless backhaul providers to obtain ARRA funding to build out more cost-effective middle mile infrastructure will ensure the availability of dramatically lower cost backhaul options for rural broadband service providers, enabling first-time broadband deployment in many markets.

The Commission Should Facilitate Affordable Backhaul Capacity and Support Broadband Stimulus Efforts by Making a Portion of the White Spaces Available Now for Fixed, Licensed Use.

As the Petitioners have detailed in the past, where available, White Spaces-based backhaul solutions can provide an important tool to reduce the costs of backhaul by as much as 80-90% in rural areas. The favorable propagation characteristics of White Spaces make the bands ideal for backhauling traffic over very long distances (*e.g.*, 70 miles and longer) at low cost. For this reason, over 300 fixed links have already been licensed and installed in the TV Bands under the existing Broadcast Auxiliary Service ("BAS") rules. A single 100-mile wireless backhaul link, for example, could be constructed at a cost of $100,000 – $200,000 using two small lightweight antennas, while covering the same distance using 3.65 GHz or 6 GHz spectrum would require four relay towers and a total of 10 six-foot diameter dish antennas, at a cost of $3

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[18] *See, e.g.*, Comments of Qualcomm Incorporated, GN Docket No. 09-29 (filed March 25, 2009) at 10 ("[T]he costs even to extend mobile broadband into these [rural] areas, especially for back haul, are substantial. Public funding, targeted to cover the costs to extend mobile broadband into these unserved areas, would bring incalculable benefits for the nation."); Comments of General Communication, Inc., GN Docket No. 09-29 (filed March 25, 2009) at 3 (referencing cost-effective middle-mile transport as critical to broadband deployment in rural Alaska); Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies, GN Docket No. 09-29 (filed March 25, 2009) at 8 (stating that "[a]nother significant obstacle that rural ILECs face in deploying broadband . . . is the high price of access to the Internet backbone"); Comments of DigitalBridge Communications Corp. ("DBC"), GN Docket No. 09-29 (filed March 25, 2009) at 8-9 ("The lack of middle mile infrastructure is one of the greatest obstacles to building sustainable rural broadband networks."); Comments of Mark Bayliss, President Visual Link Internet, GN Docket No. 09-29 (filed March 25, 2009) at 1.

[19] Acting Chairman Michael J. Copps, Federal Communications Commission, Bringing Broadband to Rural America: Report on a Rural Broadband Strategy, GN Docket No. 09-29 (May 22, 2009) ¶ 114.

million or more.[20] This dramatic cost differential can make or break the economic feasibility of providing wireless broadband to remote communities, and it could be instrumental in making new rural backhaul deployment sustainable pursuant to the requirements of the NOFA.[21]

In addition, White Spaces channels are widely available in rural areas. The Petitioners have calculated that 15 to 45 or more channels often lie fallow in the nation's underserved areas.[22] Moreover, the longstanding use of these frequencies for BAS point-to-point links (some of which are 100 miles long or more) also ensures the off-the-shelf availability of point-to-point equipment well-suited for backhaul for these channels. Because such equipment is available today, the White Spaces channels are a realistic, near-term option for prospective middle mile service providers who will be applying for ARRA grant funding in rural areas over the coming months, facilitating dramatically lower cost backhaul options for rural broadband deployment.

Under the Petitioners' proposal (including proposed technical rules filed earlier in this proceeding[23]), fixed use would be licensed only on UHF TV Channels 21-35 (512-596 MHz) and 39-51 (620-698 MHz). Fixed use channels would be 6 MHz wide and align with the UHF TV channels. In rural counties, six vacant channels second or greater adjacent to a TV broadcast station could be made available for licensed, fixed use. In addition, in all counties, all vacant channels third or greater adjacent to a TV broadcast station could be made available for licensed, fixed use.[24] The Petitioners recognize that there may be rare instances of rural areas that have few vacant channels, and the Commission could limit the total channels available for fixed, licensed operations in such areas to no more that one-half of the second or greater adjacent channels. Fixed use operations also could be licensed more broadly in unserved and underserved areas where significant amounts of spectrum remains unused, as determined by the Commission.

Authorizing fixed, licensed use in a limited portion of the White Spaces would have a negligible impact on proposed unlicensed uses. Unlicensed devices such as TV Bands Devices ("TVBDs") would still be able to operate in the channels in which fixed, licensed use is not permitted (such as, in non-rural areas, the first- and second-adjacent channels to television stations). TVBDs could also operate in channels designated for fixed, licensed use, subject to the normal non-interference protections afforded to licensed users once they are licensed and constructed in a given area. In this case, the Commission could utilize the same framework that

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[20] Reply to Oppositions filed by FiberTower, RTG, COMPTEL, and Sprint Nextel, ET Docket Nos. 04-186, 02-380 (filed May 18, 2009) at 6 ("Reply").

[21] *Id.* at 6; *see also* Comments of Wireless Communications Association International, Inc., GN Docket No. 09-51 (filed June 8, 2009) at 46.

[22] Reply at 2; *see also* Attachment to *Ex Parte* letter from Michele C. Farquhar to Marlene Dortch, ET Docket Nos. 04-186, 02-380, GN Docket No. 09-29, at 3 (Apr. 13, 2009).

[23] *See infra* note 35.

[24] The designation of urban and rural counties would be based on existing PCS and cellular rules (*i.e.*, rural counties are counties that have population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census). *See, e.g.*, 47 C.F.R. § 24.232(b).

it has adopted for BAS links,[25] and the transmitter and receiver coordinates, channel number, and call sign for each new site-based point-to-point link could be added to the forthcoming White Spaces database.[26] Then, as with BAS links, any impact to unlicensed White Spaces devices (with their sensing capabilities) from the new site-based links would be just in the small "exclusion zones" near the fixed, licensed receive sites.

Fixed, licensed use of a portion of the White Spaces is consistent with the views of several Commissioners, who have noted the potential for higher-powered fixed uses in the White Spaces to address some of the need for broadband backhaul. For example, Commissioner McDowell stated that "[l]imited white spaces point-to-point licensing may allow entrepreneurs to find more efficient paths for their backhaul needs while leaving the lion's share of white spaces spectrum on the table for unlicensed users."[27] Similarly appreciating the potential of the White Spaces for low-cost backhaul solutions, Commissioner Copps highlighted the suitability of the White Spaces (and their "enhanced propagation characteristics") for "solving the broadband deficit in many rural areas," explaining that "it should be quite possible, at some point, to authorize higher-power devices in rural areas that will support backhaul and broadband infrastructure."[28]

Likewise, commenters also underscored the importance of affordable backhaul in the Commission's National Broadband Plan proceeding,[29] and several specifically highlighted the benefits of using the White Spaces for backhaul. T-Mobile commented that the spectrum "is ideal" for providing wireless backhaul services.[30] The Wireless Communications Association International, Inc. also emphasized that "[i]f a fixed, licensed regime were authorized in a portion of the [White Spaces], one of the primary obstacles to rural broadband deployment –

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[25] *See* 47 C.F.R. § 15.712(c) ("For permanent BAS receive sites appearing in the Commission's Universal Licensing System or temporary BAS receive sites registered in the TV bands database, TVBDs may not operate within an arc of +/-30 degrees from a line between the BAS receive site and its associated permanent transmitter within a distance of 80 km from the receive site for co-channel operation and 20 km for adjacent channel operation. Outside this +/-30 degree arc, TVBDs may not operate within 8 km from the receive site for co-channel operation and 2 km from the receive site for adjacent channel operation."); *see also Second R&O* ¶ 189.

[26] *See Second R&O* ¶ 214 (requiring the same information for each BAS link to be included in the White Spaces database).

[27] *Id.*, Statement of Commissioner Robert M. McDowell, at 2.

[28] *Id.*, Statement of Commissioner Michael J. Copps, at 2.

[29] *See, e.g.*, Comments of FiberTower Corporation, GN Docket No. 09-51 (filed June 8, 2009) at 1 (stating that "[n]o national broadband plan would be complete without a strong "middle mile" and "last mile" backhaul component," and that "ubiquitous broadband is not possible without the presence of high capacity middle mile and last mile backhaul networks"); Comments of T-Mobile USA, Inc., GN Docket No. 09-51 (filed June 8, 2009) at 11; *see also* Comments of General Communication, Inc., GN Docket No. 09-51 (filed June 8, 2009) at 8.

[30] Comments of T-Mobile USA, Inc., GN Docket No. 09-51 (filed June 8, 2009) at 19; *see also* Comments of FiberTower Corporation, GN Docket No. 09-51 (filed June 8, 2009) at 8-10.

backhaul and middle mile transport – would be largely overcome."[31] As COMPTEL stated, "[f]ixed licensed operation would likely accelerate broadband deployment and expand broadband capacity to underserved and unserved areas by providing the necessary middle mile connectivity in an economically efficient manner."[32]

The Commission Can Advance Affordable Backhaul Without Prejudicing Other Petitions for Reconsideration of the *Second R&O*.

The Commission can provide an important tool for expanding broadband deployment in unserved and underserved areas by authorizing fixed, licensed use of a portion of the White Spaces—but only if it acts quickly. As noted above, initial applications for BIP and BTOP funding will be due next month, with second and third funding rounds following close behind. To ensure that backhaul opportunities are not foreclosed through delay, the Commission should address the Petitioners' narrow proposal as soon as possible, even if the Commission has to bifurcate the White Spaces proceeding.

The Commission can bifurcate the proceeding and address the Petition – as it has done with other proceedings in the past[33] – without prejudicing the other petitioners and without rendering any other issues moot. Moreover, it can grant the Petition and help spur broadband deployment without any negative impact on the other reconsideration petitions involving more complex, controversial, and technical issues related to the White Spaces. The Petitioners' proposal – calling for a very specific, geographically-limited licensed regime for fixed point-to-point services that would "overlay" the predominantly unlicensed regime developed in the Order – is sufficiently distinct such that no other issues raised in response to the *Second R&O* would be impacted.

Indeed, the Petitioners' proposal will protect <u>all</u> incumbent users of the White Spaces and will benefit (not prohibit) unlicensed networks, **as those unlicensed networks will need cost-effective backhaul solutions**. After lengthy coordination with various user

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[31] Comments of Wireless Communications Association International, Inc., GN Docket No. 09-51 (filed June 8, 2009) at 47; *see also* Comments of the Rural Telecommunications Group, Inc., GN Docket No. 09-51 (filed June 8, 2009) at 6-7 (supporting licensed wireless backhaul in the White Spaces because, absent such infrastructure, broadband networks "simply cannot operate").

[32] Comments of COMPTEL, GN Docket No. 09-51 (filed June 8, 2009) at 23; *see also* Comments of Sprint Nextel Corporation, GN Docket No. 09-51 (filed June 8, 2009) at 24-35 (stating that licensing the White Spaces could offer "a cost-effective alternative in some rural areas where broadband access is sorely lacking").

[33] *See, e.g.*, *AirCell, Inc. Petition, Pursuant to Section 7 of the Act, For a Waiver of the Airborne Cellular Rule, or, in the Alternative, for a Declaratory Ruling*, Order on Reconsideration, DA 99-1522 (rel. Jul. 30, 1999); *Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License—American Radio Relay League Petition for Reconsideration*, Memorandum Opinion and Order, 5 FCC Rcd 7314 (1990).

groups,[34] the Petitioners filed a four-page detailed technical rules proposal designed to protect incumbent users.[35]

Although there was some limited opposition to the Petition, most of the opposition was based on a misunderstanding of the proposal, on completely erroneous suggestions that there is inadequate White Spaces spectrum in rural areas, or on a failure to recognize the dramatic cost savings that broadband providers could achieve through the use of White Spaces backhaul. The Petitioners demonstrated in their Reply that their proposal (similar to the Part 101-type licensing requirements used for other wireless backhaul systems) would increase the efficient utilization of the band. Unlike proposed unlicensed TV bands devices, licensed users would incur real costs (including various regulatory and coordination fees) and short-term build-out obligations and construction expenses in exchange for their spectrum usage. In addition, the Petitioners' narrow proposal is modeled on a successful real-world approach used in Canada, which has stimulated greater broadband access through "Remote Rural Broadband Systems" located on White Spaces channels.

The Commission has a robust record at this time on which to provide for fixed, licensed use of a portion of the White Spaces directly through an Order, but time is of the essence.

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[34] The Petitioners have coordinated with the Association for Maximum Service Television ("MSTV"), the National Association of Broadcasters ("NAB"), the National Cable & Telecommunications Association ("NCTA"), the Community Broadcasters Association ("CBA"), wireless microphone user groups, and the wireless medical telemetry service community.

[35] *See, e.g.*, *Ex Parte* filing by FiberTower, RTG, Sprint Nextel, and COMPTEL, ET Docket Nos. 04-186, 02-380 (filed Jun. 25, 2008, updated version filed Oct. 29, 2008).

There are many benefits of licensed use of the White Spaces, based on the exceptional propagation features of the band (offering significant cost savings compared to other spectrum bands), for both licensed and unlicensed providers attempting to deploy broadband service in rural areas. The Petitioners' proposal will serve the goals of the ARRA by promoting build-out in rural areas, will provide enhanced protection of incumbents through greater certainty and accountability, and can be implemented almost immediately given the off-the-shelf availability of fixed point-to-point backhaul equipment. These benefits can only be achieved, however, if the Commission acts expeditiously to grant the Petition, even if it is necessary to bifurcate this proposal from issues raised in other petitions for reconsideration.

Respectfully submitted,

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