

September 16, 2010

**VIA ELECTRONIC DELIVERY**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street, SW  
Room TWA325  
Washington, DC 20554

**Re: Written *Ex Parte* Presentation  
ET Docket Nos. 04-186, 02-380, 10-24; GN Docket No. 09-157;  
WT Docket Nos. 08-166, 08-167**

Dear Ms. Dortch:

On behalf of FiberTower Corporation (“FiberTower”), Sprint Nextel Corporation (“Sprint Nextel”), the Rural Telecommunications Group, Inc. (“RTG”), and the Wireless Communications Association International (“WCAI”) (collectively, the “Coalition”), this *ex parte* filing corrects the latest allegations made by the Wireless Internet Service Providers Association (“WISPA”) regarding the Coalition’s proposal to permit limited fixed licensed use of a limited percentage of the vacant TV Bands channels or “White Spaces” in rural and tribal areas to provide more cost-effective backhaul options.<sup>1</sup> WISPA’s continued attempts to exclude limited licensed point-to-point backhaul operations in the White Spaces should be summarily rejected. Instead, the Commission should adopt the Coalition’s backhaul proposal and ensure that the White Spaces spectrum can be deployed for cost-effective backhaul to support and facilitate viable rural and tribal broadband deployment, including in more remote areas in many cases.

- **In rural and tribal areas, backhaul services are an efficient and highly needed use for the White Spaces.** The Coalition’s proposal seeks to facilitate limited fixed licensed point-to-point *backhaul* deployment in the White Spaces (*i.e.*, the Coalition is not seeking authority for fixed licensed point-to-multipoint use or for any other licensed services). Affordable backhaul infrastructure must be built before consumers can benefit from unlicensed and licensed broadband networks and devices, and the cost and propagation advantages of the White Spaces over higher-frequency microwave spectrum make the White Spaces ideal for the Coalition’s backhaul proposal. Moreover, adopting the proposal now is especially critical and time-sensitive for rural carriers because major build-out deadlines are rapidly approaching for the

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<sup>1</sup> See *Ex Parte* filing by the Wireless Internet Service Providers Association, ET Docket Nos. 04-186 and 10-24, GN Docket No. 09-157, and WT Docket Nos. 08-166 and 08-167 (filed Sept. 8, 2010) (“*WISPA Ex Parte*”).

Broadband Radio Service/Educational Broadband Service, the 700 MHz band, and other services. By adopting the proposal now, the Commission can ensure that the White Spaces spectrum can be deployed for cost-effective backhaul to support and facilitate viable rural build-out in these and other wireless services; these efficiencies will free up monetary resources for increased rural broadband deployment, including in more remote areas in many cases.<sup>2</sup> It is not clear when or even if unlicensed TV Bands devices (“TVBDs”) will be available in rural and tribal areas, and it may be years before such products are even introduced in urban markets. However, because of the large amount of White Spaces spectrum available in rural and tribal areas, it is highly unlikely that the demand for channels to support unlicensed TVBDs would ever approach the amount of channels that are available. Indeed, it is far more likely that prohibiting limited fixed licensed point-to-point operations in rural and tribal areas – and allowing the White Spaces spectrum to continue to lie fallow for many years – would be significantly less spectrally efficient than permitting such use.<sup>3</sup>

- **The Coalition’s backhaul proposal utilizes low-cost, lightweight off-the-shelf equipment for the Broadcast Auxiliary Service (“BAS”) and is the only practical, cost-effective long-distance wireless backhaul solution that has been identified for rural and tribal areas.** Contrary to WISPA’s claims, these antennas are not only well-suited for limited fixed licensed point-to-point use in the White Spaces, but they are the very same antennas already in use for BAS operations in the TV Bands – which is why they have a beamwidth and radiation pattern similar to existing BAS operations instead of traditional point-to-point microwave transmitters.<sup>4</sup> To the extent necessary in a particular market, such antennas can be attenuated or shielded to reduce further the potential for interference to any other White Spaces operations. Although WISPA implies that fixed licensed point-to-point operations should instead utilize high-gain, narrow beamwidth antennas that use lower transmitter power, those antennas are only available at much higher costs and dramatically higher weight and wind shear that reduce significantly or negate the viability of wireless backhaul deployment in the White Spaces.<sup>5</sup>
- **The Commission can adopt the Coalition’s backhaul proposal and still retain many vacant channels for other White Spaces users.** WISPA’s allegations that the Coalition’s proposal would preclude WISP use, “harm consumers,” and “displace” consumers from receiving broadband are patently false.<sup>6</sup> The Coalition’s proposal is exceedingly narrow, seeking limited licensing for fixed use on UHF TV Channels 14-20, 21-35 and/or 39-51 for up to just six vacant White Spaces channels second or greater adjacent to a TV broadcast station in rural counties.

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<sup>2</sup> The proposal also encourages efficient spectrum use because licensees would have to pay substantial application fees and construct and begin using the spectrum for backhaul within 18 months of licensing, assuming that the Commission extends the Part 101 rules to new licensed fixed point-to-point operations as the Coalition has proposed.

<sup>3</sup> The short-range point-to-multipoint services proposed by WISPA, on the other hand, are well-suited for the 3.65 GHz band.

<sup>4</sup> In addition to the Part 101 licensing requirements, the Coalition has proposed that licensed fixed point-to-point operations comply with the power limits and antenna beamwidth requirements applicable to *existing* BAS operations.

<sup>5</sup> If the Coalition were to deploy antennas of the type suggested by WISPA, interference to WISP systems would also occur at greater distances.

<sup>6</sup> See *WISPA Ex Parte* at 8, 9, 13.

The White Spaces channels are widely available in rural and tribal areas (with anywhere from 15-to-45 or more vacant channels – up to 270 MHz – available in a given area) because there are fewer TV stations and other TV Band transmitters operating there. For example, the rural Midas, Nevada area has approximately 47 vacant White Spaces channels, far more than necessary to accommodate the Coalition’s backhaul proposal.<sup>7</sup> By limiting the number of channels available for limited fixed licensed point-to-point use (*i.e.*, up to six channels or a limited percentage of the vacant available channels), the proposal ensures that many channels – up to 39 channels or 234 MHz – are available for other mobile **and** fixed White Spaces users.<sup>8</sup> The number of available channels, coupled with the low density of consumers in rural and tribal areas and the limited power and transmission range of the proposed unlicensed TVBDs, makes it highly improbable that all of the vacant White Spaces channels could possibly be needed or used by WISPs or the proposed TVBDs in any given in rural or tribal area.

- **Rural and tribal consumers should not be limited to second-class broadband backhaul.** Neither an unlicensed approach nor WISPA’s “licensed-lite” approach is appropriate for providing reliable, cost-effective wireless backhaul in rural and tribal areas. Both approaches would prevent the high quality of service required for backhaul that supports effective broadband deployment and would not provide sufficient interference protection to fixed point-to-point operations in the White Spaces. For example, many carrier-grade and government-grade customers simply will not accept unlicensed or non-exclusive hybrid licensed services. Instead, they often require service level agreements with a signal availability from 99.99-99.999% and detailed mean time to repair (“MTTR”) guarantees, both of which would be impossible without the certainty provided by an exclusive license.
- **WISPs also need backhaul.** Affordable systems to backhaul rural WISP traffic to the Internet are needed for WISPs to function effectively.

The Commission should reject WISPA’s allegations and allow limited fixed licensed point-to-point use as well as broad unlicensed use of the White Spaces. By adopting the Coalition’s backhaul proposal, the Commission has a unique and practical opportunity to advance its broadband and competition policy goals and encourage the deployment of critical cost-effective wireless point-to-point backhaul links in rural and tribal areas.

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<sup>7</sup> See, e.g., <http://spectrumbridge.com/products-services/tv-whitespaces/single-location-search.aspx#Search>.

<sup>8</sup> Similarly, the Coalition’s backhaul proposal can also largely accommodate any subsequent “repacking” in the TV Bands because only a maximum of six out of the dozens of vacant channels in rural and tribal areas would be authorized for fixed licensed point-to-point use.

Pursuant to Section 1.1206(b)(1) of the Commission's rules, I am filing this letter electronically in the above-referenced dockets. Please contact me directly with any questions.

Respectfully submitted,

*/s/ Michele C. Farquhar*

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