

January 22, 2007

**VIA ECFS AND HAND DELIVERY**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
Washington, DC 20554

**Re: Petition for Expedited Waiver Pending Rulemaking**

**Conterra Ultra Broadband, LLC, Request for Waiver of Part 101  
Of the Commission's Rules to permit the Use of 0.61 Meter ("Two-Foot")  
Antennas in the 10.7-11.7 GHz Fixed Service Band (File No. \_\_\_\_\_)**

**Amendment of Part 101 of the Commission's Rules to Increase Spectrum  
Use through More Flexible antenna Rules for the 10.7-11.7 GHz Band  
(RM-11043)**

Dear Ms. Dortch:

On behalf of Conterra Ultra Broadband, LLC, please find attached for filing an original and four copies with the Federal Communications Commission the above-referenced Petition for Expedited Waiver Pending Rulemaking. Please feel free to contact the undersigned counsel if you have any questions or require further information.

Respectfully submitted,



Cavan Fabris

*Counsel to Conterra Ultra Broadband, LLC*

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Conterra Ultra Broadband, LLC, Request for	)	
Waiver of Part 101 of the Commission's	)	
Rules to Permit the Use of 0.61 Meter	)	File No. _____
("Two-Foot") Antennas in the 10.7-11.7	)	
GHz Fixed Service Band	)	
	)	
In the Matter of	)	
	)	
Amendment of Part 101 of the	)	RM-11043
Commission's Rules to Increase Spectrum	)	
Use Through More Flexible Antenna Rules	)	
for the 10.7-11.7 GHz Band	)	

**PETITION FOR EXPEDITED WAIVER PENDING RULEMAKING**

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**PETITION FOR EXPEDITED WAIVER PENDING RULEMAKING**

Pursuant to Sections 1.3 and 1.925 of the Commission's Rules,<sup>1</sup> Conterra Ultra Broadband, LLC ("Conterra") files this Petition for Expedited Waiver of Sections 101.103 and 101.115 of the Commission's Rules.<sup>2</sup>

**I. Introduction**

In accordance with the Commission's recent *FiberTower Order*,<sup>3</sup> Conterra requests a similar waiver to that granted to FiberTower to allow the use of 0.61 Meter Fixed Service antennas in the 10.7-11.7 GHz ("11 GHz") band. Expedited treatment is appropriate because Conterra seeks the same relief granted to FiberTower. Conterra directly competes with FiberTower in the last-mile broadband and backhaul marketplace, and Conterra is

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<sup>1</sup> 47 C.F.R. §§ 1.3, 1.925.

<sup>2</sup> *Id.*, §§ 101.103, 101.115.

<sup>3</sup> *In the Matter of FiberTower Inc. Petition for Waiver of Sections 101.103 and 101.115 of the Commission's Rules for the Use of 0.61 Meter Antennas in the 10.7 – 11.7 GHz Band*, Order, 21 FCC Rcd. 6386, (rel. June 6, 2006) ("*FiberTower Order*").

subject to the same physical, economic, and regulatory constraints faced by FiberTower and detailed in its Petition for Waiver and acknowledged by the Commission.<sup>4</sup> Although a Petition for Rulemaking<sup>5</sup> has been filed requesting Sections 101.103 and 101.115 be amended, a waiver pending Rulemaking should be granted here because: (1) Conterra will demonstrate below that it meets the Commission's waiver standards pursuant to Sections 1.3 and 1.925 of the Commission's Rules<sup>6</sup> and related orders; (2) the Commission has stated that waiver of Section 101.103 and 101.115 of the Commission's Rules is in the public interest and consistent with the Commission's goals of facilitating wireless broadband deployment and improving spectrum efficiency;<sup>7</sup> (3) Conterra is prepared to operate under the same conditions imposed by the Commission on FiberTower; and (4) since the Commission granted the FiberTower waiver, Conterra is not aware of any interference issues resulting from the use of 0.61 Meter Fixed Service antennas, and accordingly no interference should be expected by expedited grant of this waiver request.

## II. Conterra Ultra Broadband

Conterra Ultra Broadband, LLC is a licensed FCC Common Carrier that provides microwave and fiber-based, high-speed broadband connections and network support services to education, healthcare, business, government, and carrier customers primarily in underserved communities. Conterra delivers its service via high-speed ethernet and

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<sup>4</sup> See *FiberTower, Inc., Petition for Waiver Pending Rulemaking* (filed Oct. 22, 2004) (“*FiberTower Waiver Petition*”); see also *FiberTower Order* ¶ 5-7.

<sup>5</sup> See *FiberTower, Inc., Petition for Rulemaking* (filed July 14, 2004) (“*FiberTower Rulemaking Petition*”). The rulemaking, Amendment of Part 101 of the Commission's Rules to Increase Spectrum Use Through More Flexible Antenna Rules for the 10.7 -11.7 GHz Band, has been docketed as RM-11043. See Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemaking Filed, *Public Notice*, Report No. 2666 (July 23, 2004).

<sup>6</sup> 47 C.F.R. §§ 1.3, 1.925.

<sup>7</sup> *FiberTower Order* ¶ 12.

backhaul transport services using microwave technology and licensed radio spectrum within and beyond traditional network end-points. Conterra's service provides secure, interference free, low-latency alternative access, which permits the transmission of data, voice, and video simultaneously in a converged environment at price points comparable to optical fiber. Currently, Conterra delivers more than 12,000 "T-1 equivalents" of bandwidth nationwide.

### III. *FiberTower Order*

On June 6, 2006 the Commission granted a waiver requested by FiberTower Inc. "of the technical parameters in Sections 101.103 and 101.115 of the Commission's Rules that establish interference protection for operators in the 10.7–11.7 GHz (11 GHz) band."<sup>8</sup> Specifically, the *FiberTower Order* granted FiberTower, but no other similar provider, permission to use "0.61 Meter ('Two-Foot') antennas as an optional alternative to the 1.22 Meter ('Four-Foot') antennas that meet the existing technical parameters for Fixed Microwave Service in the 11 GHz band."<sup>9</sup>

In the *FiberTower Order*, the Commission stated "that a grant of the instant waiver would result in a better implementation of Commission policy..." because "...the more intensive use of the 11 GHz band pursuant to the instant waiver is consistent with the Commission's objective of promoting the efficient and effective use of spectrum."<sup>10</sup> The Commission further agreed with FiberTower (and commenters to FiberTower's waiver petition) "that the instant waiver will permit the immediate deployment of 0.61 Meter

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<sup>8</sup> See *FiberTower Order* ¶ 1; see also 47 C.F.R. § 101.115(b) clarifying that the Commission's Rules, on their face, do not mandate a specific antenna size. Section 101.115(b) establishes technical parameters that, given the current state of technology, translate to a certain size antenna.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*, ¶ 12.

antennas in the 11 GHz band, thereby increasing the number of sites available for 11 GHz backhaul....”<sup>11</sup> The Commission ruled that “...the installation of 0.61 Meter antennas in the 11 GHz band, pursuant to terms and conditions set forth ...[in the *FiberTower Order*], will facilitate the use of the 11 GHz band while providing interference requirements and procedures to appropriately protect licensees operating in the band.”<sup>12</sup>

As that is true for FiberTower, it is equally true for Conterra. Accordingly, the Commission should grant Conterra’s request for waiver on an expedited basis.

#### IV. Waiver Standards

Section 1.925 of the Commission’s Rules<sup>13</sup> provides that a waiver of the Commission’s Rules may be granted upon a showing that either:

(1) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (2) in view of the unique or unusual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.<sup>14</sup>

In *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), the D.C. Circuit further clarified the criteria for waivers of the Commission’s rules.<sup>15</sup> As the court explained, the Commission “[has] an obligation to seek out the ‘public interest’ in particular individualized cases.”<sup>16</sup> In addition, “... a general rule, deemed valid because its overall objectives are in the public interest, may

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<sup>11</sup> *Id.*

<sup>12</sup> *Id.*; see also Wireless Communications Association International, Inc., Comments, at 2, (filed Feb. 3, 2005); Fixed Wireless Communications Coalition, Comments at 1-2, (filed Feb. 3, 2005); see Letter from Michael E. McCormick, Program Manager, Cingular Wireless, to Magalie Salas, Secretary, FCC (filed Jan. 12, 2005; dated Dec. 15, 2004) (“Cingular Letter”).

<sup>13</sup> 47 C.F.R. § 1.925.

<sup>14</sup> *Id.*

<sup>15</sup> See *2002 Biennial Regulatory Review*, 18 FCC Rcd. 13620 ¶ 85 n.130 (2003); see also *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

<sup>16</sup> *Id.* at 1157.

not be in the ‘public interest’ if extended to an applicant who proposes a new service that will not undermine the policy, served by the rule, that has been adjudged in the public interest.”<sup>17</sup> As demonstrated below, and consistent with the *FiberTower Order*,<sup>18</sup> on-going application of the rules to Conterra limits the ability of Conterra to deploy new services that further the Commission’s spectrum management objectives and the public interest.

Currently, as was the case for FiberTower (before Commission grant of its waiver request), the Commission’s rules often limit or frustrate Conterra’s effort to provide service, and Conterra must either delay the deployment of service or incur significant cost to comply with the Commission’s existing specifications. Under either situation, service delays, equipment, and network reconfiguration costs limit the deployment of service to areas Conterra serves, which are primarily underserved communities. Meanwhile, pursuant to the waiver it has obtained, FiberTower (one of Conterra’s competitors) faces no such limitations.

## **V. Public Interest**

As the Commission already has found in the *FiberTower Order*, waiver of Section 101.103 and 101.115 of the Commission’s Rules is clearly in the public interest and consistent with the Commission’s goals of facilitating wireless broadband deployment by alleviating scarcity in the local loop, reducing cost of providing 11 GHz service, improving the use of the limited tower space available for antennas, and improving spectrum efficiency in the short term.

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<sup>17</sup> *Id.*

<sup>18</sup> *FiberTower Order* ¶ 13 (recognizing “the instant waiver will thereby promote the efficient use of the spectrum by allowing FiberTower the flexibility to install 0.61 Meter antennas in the 11 GHz band to provide for a wide range of fixed microwave applications that are not currently being provided for in the 11 GHz band for both financial and aesthetic reasons.”).

A. Scarcity

As stated by FiberTower, recent Commission decisions to promote broadband deployment through the removal of regulatory roadblocks, clearing of spectrum, and adoption of rules to increase competition will increase the number of broadband subscribers.<sup>19</sup> In the *FiberTower Order*, the Commission further agreed and confirmed that “it is in the public interest to facilitate the use of the 11 GHz band.”<sup>20</sup>

Conterra provides wireless broadband local backhaul service primarily to K-12 schools and other educational facilities located in rural and non-urban areas. These users and markets traditionally have been underserved by national broadband carriers. Currently, the only way to practicably provide high-speed local backhaul service to these areas is via either a fiber optic network or wireless broadband. However, in most instances, fiber does not reach the rural and non-urban markets that Conterra serves. Conterra’s 0.61 Meter antenna service is consistent with the Commission’s goal of bridging the digital divide by providing an inexpensive backhaul alternative to that of laying fiber optic cable or facing the cost, space, and regulatory barriers that prevent the installation of traditional 1.22 Meter antennas.

B. Cost

The Commission recognized in the *FiberTower Order* that “the use of smaller antennas will reduce the cost of providing 11 GHz links due to the lower initial purchase cost of 0.61 Meter antennas as well as lower installation, mounting, and maintenance costs.”<sup>21</sup> Lower cost of service provision within the 11 GHz band will encourage competition not only in the fiber optic broadband marketplace, but also within the 11 GHz band. This lower cost of

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<sup>19</sup> *FiberTower Petition* at 6.

<sup>20</sup> *FiberTower Order* ¶16.

<sup>21</sup> *Id.*, ¶ 14.

service provision will result in lower prices for broadband Internet access for schools, businesses and will encourage the provision of service to underserved communities.

C. Size

Currently many towers lack the space to install a 1.22 Meter dish. The cost to upgrade the towers is “costly, time-consuming, and often impractical.”<sup>22</sup> The Commission recognized that a number of commenters to the FiberTower petition identified that “the smaller size and more modest weight of 0.61 Meter antennas will invite the installation of antennas at sites incapable of supporting 1.22 Meter antennas ... [because] they require less structural support and are subject to less wind load.”<sup>23</sup> Conterra faces similar limitations and accordingly should receive a similar waiver.

D. Spectrum Efficiency

In its 2006-2011 Strategic Plan, the Commission stated that one of its goals was the promotion of the “efficient and effective use of spectrum.”<sup>24</sup> The Commission took a step towards this goal by stating that the FiberTower petition “promote[s] the efficient use of the spectrum by allowing FiberTower the flexibility to install 0.61 Meter antennas in the 11 GHz band to provide for a wide range of fixed microwave applications that are not currently being provided for in the 11 GHz band for both financial and aesthetic reasons.”<sup>25</sup> Conterra has shown that, as a competitor to FiberTower in the 11 GHz band, it encounters the same challenges in delivering service via a Four-Foot dish and also “has an immediate need to

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<sup>22</sup> *Id.*, ¶ 13.

<sup>23</sup> *Id.*, ¶ 14, *citing* Ceregon Comments at 1-2; Fixed Wireless Communications Coalition Comments at 1-2; NEC Comments at 1-2; Wireless Communications Association International, Inc. Comments at 1-2; Cingular Letter at 1.

<sup>24</sup> *FiberTower Order* ¶ 16 (citing Federal Communications Commission Strategic Plan 2006-2011 at 10).

<sup>25</sup> *Id.*, ¶ 13.

deploy smaller antennas in the 11 GHz in order to provide its services.”<sup>26</sup>

## VI. Conditions Imposed on FiberTower

Conterra understands that if its expedited waiver request is granted it will be subject to the same conditions as placed on FiberTower. Conterra’s adherence to the conditions stated in the *FiberTower Order* ensures there will be no adverse effect on other users of the band:

(a) All operations pursuant to this waiver shall be in compliance with the technical specifications set forth in paragraph four of the *FiberTower Order*<sup>27</sup> and detailed below.

Frequency (MHz)	Category	Maximum beam-width to 3 dB pts	Minimum antenna Gain (dBi)	Minimum radiation suppression to angle in degrees from centerline of main beam in decibels						
				5° to 10°	10° to 15°	15° to 20°	20° to 30°	30° to 100°	100° to 140°	140° to 180°
10,700-11,700	A	3.5	33.5	18	24	28	32	35	55	55
	B	3.5	33.5	17	24	28	32	35	40	45

(b) A licensee or prior applicant using an antenna under the waiver may object to a frequency coordination notice (i) only if it has actual grounds to object because of predicted interference, and (ii) only to the extent it would have grounds to object if it were using a compliant (non-waivered) antenna at the same site, polarization, frequency, bandwidth, and orientation, and Equivalent Isotropically Radiated Power (“EIRP”).

(c) At any time, a Fixed Service applicant attempting to frequency coordinate a non-waivered antenna, or an applicant for a Fixed Satellite Service earth station, that predicts received interference from a licensee or prior applicant using an antenna under the waiver, can require the licensee or prior applicant to reduce the predicted interference to levels no

<sup>26</sup> *Id.*, ¶ 17.

<sup>27</sup> *Id.*, ¶ 4.

higher than would be predicted from a compliant (non-waivered) antenna. The corrections required of the station operating under waiver to resolve the interference must be made within the frequency coordination time frame specified in Section 101.103(d)(2) of the Commission's Rules.

(d) Conterra must include the terms and conditions of the waiver in any customer contracts related to the use of 0.61 Meter (Two-Foot) antennas in the 11 GHz band.

(e) Conterra, when it wishes to construct a station pursuant to the grant of this waiver request, shall specifically state in the application that the application is being filed pursuant to the waiver request. Waiver fees in connection with each application shall not be required.

(f) Conterra will comply with the outcome of proceeding RM-11043 and any related rulemaking.

**VII. Conclusion**

Consistent with the foregoing and in accordance with the Commission's grant of FiberTower's waiver request, Conterra respectfully requests that the Commission similarly grant Conterra's waiver request on an expedited basis.

Respectfully submitted,



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