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VIA ECFS ***EX PARTE***

April 17, 2013

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

Re: *WC Docket No. 10-90, Connect America Fund; WC Docket No. 05-337, High-Cost Universal Service Support*

Dear Ms. Dortch:

Windstream Corporation ("Windstream") submits this letter to provide additional information on several topics related to the Connect America Fund ("CAF") Phase I incremental support program.

The Current User Experience for Windstream Customers that Receive Broadband Speeds of "Up To" 3 Mbps/768 Kbps. Copper-fed Digital Subscriber Line Access Multiplexers (DSLAMs)—which include approximately 39 percent of all DSLAMs in Windstream's territories, serving approximately one-fifth of Windstream's broadband customers—provide a maximum of 12 Mbps of backhaul capacity that must be shared among all users on the DSLAM. Windstream uses these copper-fed facilities to offer broadband to many high-cost, rural areas, and thereby has brought broadband service to many rural customers when no other company was willing to invest the significant sums required to provide access. The copper-fed DSLAM level of backhaul capacity was appropriate for expected typical rural customer usage demands when the facilities were deployed several years ago. These facilities, however, have been strained by the rise of streaming video and other high-bandwidth applications in recent years. As an engineering matter, four users downloading 3 Mbps (typically streaming video or some other bandwidth intensive application) simultaneously would exhaust the capacity of the DSLAM, and eight simultaneous users would experience an average speed of 1.5 Mbps. The average number of households on a DSLAM in its rural markets is approximately 50. As Windstream and others have explained numerous times in this docket, it is not economic to replace the copper backhaul in these rural, high-cost communities with higher-

capacity fiber without adequate universal service support.[1] Moreover, the infrastructure necessary to provide 4/1 Mbps service is the same regardless of whether the customer currently has access to only dial-up service, broadband at 3 Mbps/678 kbps, or anything in between.[2]

Broadband Speeds That Would Be Available to Locations Off of Copper-Fed DSLAMs that Would Be Upgraded to Fiber Backhaul with the Help of CAF Phase I Support. If Windstream is able to replace the copper feeding rural, high-cost DSLAMs with gigabit Ethernet fiber with the assistance of CAF Phase I funding, the backhaul capacity for each DSLAM would immediately increase nearly one hundred-fold, from 12 Mbps to 1 GB, and could be readily enhanced in the future as fiber capacity technology improves. Though the "up to" speeds available to locations would vary depending on the distance of the location to the DSLAM, we estimate that more than 85 percent of locations would have access to 6 Mbps, 80 percent of locations would have access to 10 Mbps download speeds, about half of the locations would have access to 12 Mbps, and a significant percentage would even have access to 24 Mbps.[3] Because of the robustness of fiber as a transport medium, backhaul capacity would be more than adequate to support these robust speeds for the foreseeable future.

The Need to Provide CAF Phase I Support for Any Location that Lacks Access to 4/1 Mbps Broadband. Windstream's preliminary analysis indicates that tens of thousands of the more than 100,000 unserved[4] locations that it could reach with its suggested program modifications currently can only obtain dial-up service. It is important to note, however, that the overwhelming majority of these locations would receive upgrades through CAF Phase I only if the program provides sufficient per-location funding for *all* copper-fed locations that currently lack access to 4/1 Mbps service. As Windstream has noted before, to provide customers with 4/1 Mbps broadband service, it must replace existing copper lines feeding DSLAMs with fiber and "daisy-chain" additional fiber-fed DSLAMs ("remote terminals") off of existing fiber-fed DSLAMs.[5] On any given deployment route, there are locations that currently only have access to dial-up and other locations that, depending largely on their proximity to the DSLAM, have access to "up to" download speeds of 768 kbps, 1.5 Mbps, or 3 Mbps. When considering whether to undertake a given deployment project, Windstream or any other broadband provider

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1 *See, e.g.*, Letter from Malena F. Barzilai, Senior Counsel, Government Affairs, Windstream, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90 and 05-337, at 3 (April 8, 2013) (Windstream Ex Parte Notice); Comments of the United States Telecom Association, Independent Telephone & Telecommunications Alliance, and the ABC Coalition, WC Docket Nos. 10-90, 05-337 (filed Jan. 28, 2013).

2 *See, e.g.*, Windstream Ex Parte Notice at 3; Letter from Michael D. Saperstein, Jr., Vice President, Federal Regulatory Affairs, Frontier, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90 and 05-337, at 2 (April 9, 2013).

3 All would have access to upload speeds of 1 Mbps or more.

4 *See Connect America Fund*, WC Docket No. 10-90, Further Notice of Proposed Rulemaking, at ¶ 9 (Nov. 19, 2012) (proposing to define an "unserved" area as an area lacking access to 4/1 Mbps broadband service).

5 *See, e.g.*, Windstream Ex Parte Notice at 2.

analyzes the total economics of the project. If support is available only for a limited portion of unserved locations on a route, e.g., those with access to 1.5 Mbps or slower service, it would in most cases render the entire deployment economically infeasible for Windstream's high-cost, rural service areas. Therefore, a CAF Phase I program that leverages private investment with support for all locations that currently lack access to 4/1 Mbps broadband is most likely to maximize the deployment of robust service to locations that currently have only dial-up access or have access only to "up to" upload speeds of 1.5 Mbps or slower.

Please feel free contact me if you have any questions.

Sincerely yours,

/s/ Malena F. Barzilai

Malena F. Barzilai

cc: Michael Steffen
Julie Veach
Carol Mattey