BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

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In the Matter of the Nebraska
                                   ) Application Nos. NUSF-99.81,
Public Service Commission, on its
                                   ) 99.82, 99.83, 99.84, 99.85,
own Motion, to Administer the
                                   ) 99.86, 99.87, 99.88, 99.89,
Universal Service Fund High Cost-
                                  ) 99.90, 99.91, 99.92, 99.93,
Program: Windstream Nebraska,
                                   ) 99.94, 99.95, 99.96, 99.97,
                                   ) 99.98, 99.99, 99.100, 99. 101,
Inc. Broadband Grant Requests:
Crete FW Northeast RL05, Crete FW
                                  ) 99.102, 99.103, 99.104,
                                   ) 99.105, 99.106, 99.107,
East RL06, Crete FW Extreme East
RL07, Crete FW South RL09, Crete
                                   ) 99.108, 99.109, 99.110,
FW West RL11, Southwest Denton FW ) 99.111, 99.112, 99.113,
                                   ) 99.114, 99.115, 99.116, and
RL02, Southeast Denton FW RL04,
Dorchester FW CO, Dorchester FW
                                   ) 99.117
Southeast RL05, Milford FW
Northwest RL01, Milford FW West
RL02, Milford FW Southwest RL04,
Milford FW Southeast RL06,
Milford FW Northeast RL09,
Palmyra FW CO, South Palmyra FW
RL02, North Palmyra FW RL03,
South Pleasant Dale FW RL03,
North Pleasant Dale FW RL05, West
                                  ) GRANTED IN PART AND, DENIED IN
Seward FW RL01, South Seward FW
                                   ) PART
RL03, East Seward FW RL05, North
                                   )
Seward FW RL08, Northeast Seward
                                   )
FW RL09, East Waco FW RL01, South
Waco FW RL02, Waverly FW
Southeast RL04, Waverly FW
Northwest RL06, North Waverly FW
RL07, Wilber FW North RL01,
Wilber FW West RL03, Wilber FW
                                   )
West RL06, York FW Northeast
                                   )
RL02, York FW South RL03, York FW
Northeast RL04, York FW North
RL05, and York FW West RL06.
                                  ) Entered: October 20, 2020
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APPEARANCES:

For the Applicant:

Mr. Blake Johnson Ms. Mary Jacobson Bruning Law Group 1201 Lincoln Mall, Suite 100 Lincoln, Nebraska 68508

For the Protestants/Intervenors:

Mr. Andrew Pollock Rembolt Ludtke LLP 1201 Lincoln Mall, Suite 102 Lincoln, Nebraska 68508

For the Commission:

Ms. Shana Knutson 300 The Atrium Building 1200 N Street Lincoln, Nebraska 68508

BY THE COMMISSION:

By Applications filed December 4, 2019, Windstream Nebraska, Inc. ("Windstream") seeks Nebraska Universal Service Fund (NUSF) support for a number of broadband projects in the areas identified above. Notice of these Applications appeared in The Daily Record, Omaha, on December 11, 2019.

By Petition filed January 10, 2020, Arapahoe Telephone Company, Benkelman Telephone Company, Inc., Cambridge Telephone Company, Cozad Telephone Company, Diller Telephone Company, Glenwood Network Services, Inc., The Glenwood Telephone Membership Corporation, Hartman Telephone Exchanges, Inc., Hemingford Cooperative Telephone Co., Communications, Pierce Telephone Company, Plainview Telephone Company, Southeast Nebraska Communications, Inc., Stanton Telecom, Inc., Wauneta Telephone Company, and WesTel Systems (collectively, "Rural Telecommunications Coalition Nebraska" or "Petitioners") sought formal intervention status in the above-captioned applications. Protests to the applications were filed by Diode Communications ("Diode"), Affordable Internet Solutions, Inc. ("AIS"), Communications, LLC ("Big Red"), Future Wireless Technologies of Nebraska , Inc. ("Future Tech"), and PointeNet Internet Service ("PointeNet") (collectively, "Protestants"). On January 15, 2020, Windstream Nebraska, Inc. ("Windstream") submitted a response in opposition to the Petition for Formal Intervention and Protest. On March 5, 2020, the Hearing Officer, granted the Petition for Intervention.

A planning conference was held by telephone on April 7, 2020 and a procedural schedule was established with the consent of the

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parties. On June 3, 2020 a consolidated hearing on the applications was held in the Commission Hearing Room in Lincoln, Nebraska and via videoconference. Appearances were entered as indicated above.

EVIDENCE

Applicant called four witnesses in support of the projects identified in the above-captioned applications. All applications are requests for Nebraska Universal Service Fund (NUSF) support for constructing facilities for fixed wireless service. Applicant filed pre-filed direct testimony for each of its four witnesses. The pre-filed testimony was marked and received into evidence as Exhibit Nos. 3, 7, 8 and 9. Applicant's testimony is summarized and restated as follows:

Ms. Stephanie Laux is a Local Marketing Professional for Windstream. She has held that position for approximately two years. She is responsible for local marketing, brand awareness activities and local public relations.

Her testimony indicated that Windstream conducted a survey of approximately 400 customers who receive Windstream services via fixed wireless technology.⁴ At the date of the hearing, 121 customers responded to the survey.⁵ Nearly 60 percent of the responding customers converted to Windstream from another fixed wireless provider with another 23 percent switching from Windstream's DLS service.⁶ Mr. Laux testified that on a five-star rating scale, Windstream received 4.3 stars for overall satisfaction and 4.4 stars for customers who would recommend Windstream's fixed wireless service

¹ Hearing Exhibit No. 3, Direct Testimony of Stephanie Laux at 1.

² Id.

³ Id.

⁴ See id. at 2.

⁵ Id.

⁶ Id.

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to a friend or family member. 7 A one-page summary of the survey was attached to her testimony.

Upon cross-examination, Ms. Laux testified Windstream advertises its services to the public through direct mail, email, yard signs, and door hangers. Ms. Laux stated there was a separate charge for broadband services and voice services. However, the price would depend on the package chosen by the subscriber. A simple voice line addition would be \$17.50. In addition, Windstream has an unlimited long distance package at \$20 additional per month. 10

Upon questioning from Commissioners, Ms. Laux testified she did not know how many of the surveyed subscribers live in the area of the applications. ¹¹ However, some of the subscribers surveyed reside in the application footprint. ¹²

Mr. Anthony Walsh is a Vice President of Broadband Planning for Windstream. ¹³ He has held the position for nearly three years and is responsible for overseeing approximately 80 Windstream team members involved in various aspects of broadband deployment. ¹⁴

Mr. Walsh's testimony indicated that he has overseen Windstream's deployment of hundreds of fixed wireless sites across seven states and manages fixed wireless services for about 2,810 active customers. He testified that Windstream anticipates that its fixed wireless services will be provided at speeds far and above

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⁷ Id.

⁸ See Hearing Transcript (TR) at 22:5-8.

⁹ See TR at 22:14-16.

¹⁰ See TR at 23:8-15.

 $^{^{11}}$ See TR at 24:23 through 25:10.

¹² See id.

 $^{^{13}}$ Hearing Exhibit No. 7, Direct Testimony of Anthony Walsh at 1.

¹⁴ See id.

¹⁵ See id. at 2.

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competing carriers. 16 Advertised plans range from 28 Mbps to 100 Mbps. 17 He further testified about the RADWIN technology Windstream uses in its fixed wireless deployment. RADWIN fixed wireless sites are comprised of a wooden/steel pole that is approximately 95 feet tall or higher. 18 5GHZ point-to-multipoint radios are installed near the top of each pole, which communicate with subscriber radios via 5GHz wireless spectrum and to an Ethernet switch telecommunications cabinet near the bottom of each pole. The Ethernet switch is connected to the Windstream broadband core via fiber or point-to-point licensed 11 GHz or 18 GHz microwave. 19 Subscribers using Windstream's fixed wireless service would have a 5GHz radio mounted in a high spot on or near the home. The residential gateway provides in-home WiFi and, if requested, a connection to an analog telephone adapter (ATA) for voice over IP (VoIP) services. 20 Depending on foliage and terrain, advanced telecommunications services deployed through the RADWIN base station extend roughly five (5) miles from each site covering approximately 50-75 square miles and offer speeds of 25 to 100 Mbps. 21 Mr. Walsh provided copies of the projected coverage maps with his testimony.

Upon cross-examination, Mr. Walsh testified he did not know how long Windstream or its predecessor served in the areas that show up in the exhibit maps.²² Currently, the infrastructure is a mixture of fiber and copper plant as well as fixed wireless.²³ He did not know the number of fiber miles in the application footprint. ²⁴ He did not know how much Windstream has invested in the area in the last 20

¹⁶ See id.

¹⁷ Id.

¹⁸ Id.

¹⁹ Id.

 $^{^{20}}$ See id. at 2-3.

²¹ See id. at 3.

²² See TR at 29:10-18.

²³ See TR at 30:9-10.

²⁴ See TR at 30:18-20.

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years.²⁵ He did not know the amount of universal service fund support received in the application footprint in the last 20 years.²⁶ Mr. Walsh did not how the amount of NUSF support received in the application footprint in the last 20 years.²⁷ Mr. Walsh did not know whether Windstream would seek ongoing support for the 37 towers in the application footprint.²⁸ Mr. Walsh testified that the voice product is the same as any other voice product, however, the delivery method would be VoIP.²⁹ A customer could choose another VoIP carrier.³⁰ Mr. Walsh testified that the VoIP service would comply with Commission's rules pertaining to service quality.³¹

In response to questions from Commissioners and staff, Mr. Walsh testified that Windstream would provide battery backup power to the customer to prevent loss of service during a power outage.³² He further testified that 911 service would be provided with local information provided to the public safety answering point.³³ Mr. Walsh testified that depending on the particular area, foliage, or terrain, Windstream may be unable to provide this service to a consumer.³⁴

Mr. Jeffrey Zern is a Director of Investment Strategy for Windstream.³⁵ He has held that position for nearly two years and is

²⁵ See TR at 31:1-3.

²⁶ See TR at 31:4-8.

²⁷ See TR at 31:9 through 33:3.

 $^{^{28}}$ See TR at 33:5-17.

²⁹ See TR at 39:2-5.

³⁰ See TR at 39:11-18.

 $^{^{31}}$ See TR at 39:19-22.

³² See TR at 42:10-21.

³³ See TR at 42:22 through 43:4.

³⁴ See TR at 43:9-18.

³⁵ Hearing Exhibit No. 8, Direct Testimony of Jeffery Zern at 1.

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responsible for managing Windstream's broadband investments including rural broadband deployment projects.³⁶

Mr. Zern's testimony indicated that his team is responsible for identifying areas, defined by census blocks, which are eligible for support based upon the NUSF rules. 37 He testified that census blocks are deemed ineligible for NUSF support if they are (1) receiving Connect America Fund Phase II support; or (2) receiving at least 10 Mbps downstream and 1 Mbps upstream services from either a terrestrial broadband provider or a fixed wireless provider offering voice services, based on the most recent Form 477 filed with the Federal Communications Commission (FCC). 38 Windstream's engineering staff integrates eligible census blocks into maps of Windstream's incumbent local exchange carrier (ILEC) territory and network, which includes the existing known households. The engineers then work to determine the most cost-effective way to bring the largest number of households in the eliqible areas to a minimum speed of at least 10/1 Mbps with a goal of providing faster speeds to most of the eligible households.³⁹ This data is converted into recommendations for projects.40

Mr. Zern further testified that Windstream attempted to prioritize projects that will serve the highest number of households for the lowest capital to ensure good stewardship of the NUSF funds. 41 He stated that the applications in this docket would provide NUSF support for fixed wireless projects serving rural areas surrounding the communities of Crete, Denton, Dorchester, Milford, Palmyra, Pleasant Dale, Seward, Waco, Waverly, Wilber, and York. 42 Windstream has not requested NUSF support for census blocks in the application

³⁶ Id.

³⁷ See id. at 2.

³⁸ Id.

³⁹ Id.

⁴⁰ See id.

⁴¹ See id. at 3.

⁴² See id. at 3-4.

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areas eligible for CAF II support. 43 Mr. Zern's testimony detailed each project location, the total support sought, and the overall percentage of project costs for which support is sought. 44

Upon cross-examination, Mr. Zern testified that since 2016, Windstream received \$27 million from the NUSF. 45 Approximately \$7 million of that was ongoing operational support. 46 Approximately \$20 million was allocated towards capital expenditures. 47 Mr. Zern also testified that since 2018 Windstream has deployed over 500 route miles of fiber, it has another 237 route miles that are active, and another 400 miles that are proposed. Overall, Windstream's fiber ratio is 20 percent fiber. 48 Mr. Zern further testified that Windstream has a limited capital budget company-wide, and it wants to spend that in the most efficient and effective way possible. 49

In response to questions from Commissioners, Mr. Zern testified that Windstream has requested approximately \$10 million of NUSF support from its \$20 million allocation. 50 Windstream has had about \$6.5 million approved and those projects are underway or at some stage of completion. 51 Mr. Zern testified that Windstream has not requested 100 percent support for these projects, Windstream is providing for the remainder of the project costs. 52 Windstream is only requesting support for census blocks that it determined was eligible for support. 53 Mr. Zern testified that Windstream is using

⁴³ See id.

⁴⁴ See id.

⁴⁵ See TR at 57:4-8.

⁴⁶ See id.

⁴⁷ See id.

⁴⁸ See TR at 60:1-11.

⁴⁹ See TR at 62:4-12.

⁵⁰ See TR at 64:2-6.

⁵¹ See id.

⁵² See TR at 65:15 through 66:15.

⁵³ See id.

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fixed wireless technology to meet Connect America Fund Phase II funding obligations relative to the federal universal service fund. 54 Mr. Zern testified that Windstream is planning to deploy additional fiber in these areas. 55 As customers move to fixed wireless facilities that frees up capacity on its copper network. 56

In response to redirect questions, Mr. Zern testified that he called the protests and intervenors to inquire about the availability of voice service just prior to the hearing. The did not believe they offered voice service. Windstream offers voice and will be advertising voice service. Mr. Zern also stated that Windstream does not offer a lot of fiber to the premises in these rural areas but Windstream does have a lot of fiber in their footprint. Mr. Zern testified that he believes only 5200 census blocks are eligible for NUSF support. That is only 19 percent of the total number of census blocks in Windstream's footprint. To the total number of census blocks in Windstream's footprint. The braska-wide. He testified that Windstream has taken the approach that it would like to spend Nebraska's money as if it were its own.

When asked why the Commission should provide funding for projects in areas where others are already providing an unsubsidized service, Mr. Zern testified that he did not believe their service is

⁵⁴ See TR at 68:2-9.

⁵⁵ See TR at 69:2-15.

⁵⁶ See TR at 69:22 through 70:6.

 $^{^{57}}$ See TR at 75:17 through 76:19.

⁵⁸ See id.

 $^{^{59}}$ See TR at 77:16-20.

⁶⁰ See TR at 78:11-16.

⁶¹ See TR at 80:8-15.

⁶² See id.

⁶³ See TR at 80:16-18.

⁶⁴ See TR at 81:7-12.

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comparable or as good. 65 He stated the speeds are not as fast. 66 He agreed that as an incumbent local exchange carrier, Windstream has carrier of last resort responsibilities. 67

Mr. Trent Fellers is a Vice President of Government Relations at Windstream. 68 Mr. Fellers has held that position for about one year. 69 He is responsible for working with legislative and regulatory agencies in Nebraska, Iowa, Minnesota, Missouri and Arkansas. 70

Mr. Fellers' testimony indicated that Windstream plans to aggressively use its NUSF support to deploy both fixed wireless and fiber-to-home projects within its territories in the coming months and years. 71 Its fixed wireless projects include 54 projects supported by the NUSF, and have provided broadband services to over 5,827 locations. 72

Mr. Fellers also testified that the applications in the present proceeding will use just under \$2.26 million of the funds allocated to Windstream in 2018 to provide broadband accessibility to almost 8,340 households in the Crete, Denton, Dorchester, Milford, Palmyra, Pleasant Daile, Seward, Waco, Waverly, Wilber, and York areas. 73 At the time of his testimony, 30 of the 37 application sites were live and providing service. The remaining seven application sites are in the final stages of deployment. 74

⁶⁵ See TR at 85:15-23.

⁶⁶ See id.

⁶⁷ See TR at 86:20-23.

 $^{^{68}}$ Hearing Exhibit No. 9, Direct Testimony of Trent Fellers at 1.

⁶⁹ See id.

⁷⁰ See id.

⁷¹ See id. at 2.

⁷² See id.

 $^{^{73}}$ See id. at 2-3.

⁷⁴ See id. at 3.

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Upon cross-examination, Mr. Fellers stated that he thought public opinion about fixed wireless was varied. 75 He testified that he was familiar with the Commission's service quality rules but he would not be able to testify intelligently on what exactly all those rules are. 76

In response to questions from Commissioners and staff, Mr. Fellers testified that he did not know approximately how many customer Windstream would be serving off the fixed wireless sites that are the subject of the applications. Windstream has not started advertising in the areas that were not deployed. Windstream typically does not advertise service until those towers are up. He was not familiar with whether the advertisements mentioned specific speeds available. Commissioners asked Mr. Fellers to provide a latefiled exhibit showing the Nebraska customers served by Windstream via fixed wireless and broadband speed tests demonstrating speeds they are receiving. That was identified and filed as late-filed Exhibit No. 10.

Mr. Jon Truell testified for Future Technologies. He is President, CEO and owner of Future Wireless Technologies of Nebraska (Future Tech). 82 He has held that position since 1999.83 Future Tech filed a Protest against 37 applications filed by Windstream seeking \$2.3 million in funding from the NUSF.84 He testified that in the areas where Windstream seeks funding, Future Tech has dozens of

 $^{^{75}}$ See TR at 96:6-15.

⁷⁶ See TR at 96:25 through 97:9

⁷⁷ See TR at 98:2-5.

⁷⁸ See TR at 98:15-23.

⁷⁹ See id.

⁸⁰ See TR at 99:2-5.

 $^{^{81}}$ See TR at 101:3-25. See also Exhibit No. 10.

⁸² Hearing Exhibit No. 12, Pre-Filed Direct Testimony of Jon Truell at 1.

⁸³ See id.

⁸⁴ See id.

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broadband sites consisting of hundreds of access points. 85 At those facilities they have Netonix switches connecting via fiber or licensed backhaul to central offices in Lincoln and Omaha. 86 For wireless access points and customer premises equipment they utilize either Baicells LTE which is 3.65 GHz band or unlicensed Ubiquiti depending on the terrain and obstacles. 87

Mr. Truell's testimony indicated that Future Tech is capable of delivering speeds exceeding 25/5 Mbps and capable of delivering speeds of 100/20 Mbps which is essentially what Windstream is offering. 88 Mr. Truell's testimony also indicated that Future Tech offers 52/5 services in all of the areas subject to the Windstream applications with the exception of the York Exchange which is NUSF-99.116 and NUSF-99.117.89 Future Tech did not receive any government support for any of the facilities in those areas.90

Upon cross-examination, Mr. Truell testified that when he says Future Tech is providing broadband service in each of the census blocks that means it currently has customers located in each of the census blocks. 91 Mr. Truell testified that Future Tech is providing broadband service with at least the speeds of 10/1 Mbps in each of the census blocks being requested for funding. 92 He testified that it should be reported in the most recent Form 477 form. 93 Mr. Truell testified that Future Tech does not provide its own voice product but the network would support VoIP service in any of those areas. 94 Mr. Truell testified that he does not know in which of the census

⁸⁵ See id.

⁸⁶ See id.

⁸⁷ See id.

⁸⁸ See id.

⁸⁹ See id. at 2.

⁹⁰ See id.

⁹¹ See TR at 121: 17-24.

⁹² See TR at 122:1-6.

⁹³ See TR at 122:7-10.

⁹⁴ See TR at 122:20-25.

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blocks customers of Future Tech are subscribing to a VoIP product. 95 He stated he would need to survey his customers to obtain that information. 96 Mr. Truell testified that Future Tech has worked to deliver 25 Mbps service ubiquitously throughout its network. 97 However, he stated there could be some variation person to person just like for Windstream's fixed wireless service. 98

Upon questioning from Commissioners and staff, Mr. Truell testified that Future Tech does not provide 911 services, or contribution to the Telecommunications Relay and Universal Service Fund programs as it does not provide voice service. 99 Mr. Truell testified that Future Tech has had a presence in Nebraska since 2000. 100

In response to redirect, Mr. Truell testified that Windstream is one of the providers Future Tech uses for backhaul. 101 He testified that Windstream has been unreliable and there have been several cuts as well as maintenance windows that have gone well past their allotted times. 102 He stated that he would argue the equipment Future Tech is deploying today is capable of supporting speeds equal to or in excess of the 100 Mbps service level. 103 He further testified that Future Tech has gone through five generations of equipment. 104 Mr. Truell testified that all of his clients have had upgraded equipment installed at their locations and Future Tech has introduced LTE

 $^{^{95}}$ See TR at 123:18-25.

⁹⁶ See id.

⁹⁷ See TR at 124:4-6

⁹⁸ See TR at 124:10-15.

⁹⁹ See TR at 128:14 through 129:7.

¹⁰⁰ See TR at 130:24 through 131:2.

¹⁰¹ See TR at 133:4-8.

¹⁰² See TR at 133:9-15.

¹⁰³ See TR at 134:11 through 135:3.

¹⁰⁴ See TR at 135:13-18.

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technology which provides the ability to shoot through trees and over some adverse terrain. 105

Mr. Andrew Powell testified for Big Red Communications. Mr. Powell is the owner of Big Red Communications, LLC (Big Red) which is based in Denton, Nebraska. 106 Big Red filed a Protest opposing the 37 applications Windstream filed seeking more than \$2.3 million in NUSF support. 107

Mr. Powell's testimony indicated that in the areas in the York Exchange, where Windstream seeks funding pursuant to the requests in Application Nos. NUSF-99.113 through NUSF-99.117, Big Red has approximately 25 towers or access points. Mr. Powell testified that Big Red is capable of delivering speeds exceeding 35/3 Mbps. He further testified that those systems are also capable of providing voice services over VoIP. Moreover 109

Under cross-examination, Mr. Powell testified that he resells Future Tech's services in the areas covered by Application Nos. NUSF-99.81 through NUSF-99.112, and that he owns and operates his own plant in the areas covered by Application Nos. NUSF-99.113 through NUSF-99.117. He was not able to say in which particular census blocks the service would be provided in by Big Red as he did not have that in front of him. However, Mr. Powell testified that he has access points of his own that are tied to Future Tech's plant. He files FCC Form 477 data for everything he owns, but does not report for the resold Future Tech services.

¹⁰⁵ See TR at 136:1-8.

 $^{^{106}}$ See Hearing Exhibit No. 13, Pre-Filed Direct Testimony of Andrew Powell, Big Red Communications at 1.

¹⁰⁷ See id.

¹⁰⁸ See id.

¹⁰⁹ See id.

¹¹⁰ See TR at 141:24 through 142:1.

¹¹¹ See TR at 142:2-7.

¹¹² See TR at 142:11-16.

¹¹³ See TR at 142:17 through 143:1.

Mr. Powell testified that Big Red does not provide its own branded voice service. 114 Mr. Powell testified that he has software that monitors usage that would tell him peak usages. 115 He can equate that to a speed test. He testified that he does not have speed test records on hand. 116

In response to questions from Commissioners and staff, Mr. Powell testified that Big Red does not advertise any VoIP services. Big Red only advertises broadband. 117 Big Red does not remit to the NUSF or pay TRS surcharges. 118 Mr. Powell testified that Big Red has only been filing Form 477 data for a few years. 119 However, the plan in York was acquired from another company so they should have been filing before that.

On redirect, Mr. Powell testified that Big Red provides service in the areas covered by Windstream's application. 120 Mr. Powell testified that they offer up to 50/10 Mbps and if a customer calls with a speed complaint, Big Red will fix it until it works at those speeds. 121 He did not agree with the comparison between his service and that offered by Windstream. 122

Mr. Jay Glaser, over the objections of Windstream, testified for PointeNet. Mr. Glaser is a field technician for PointeNet Internet Service (PointeNet). 123 His responsibilities

¹¹⁴ See TR at 143:12-13.

¹¹⁵ See TR at 145:6-10.

¹¹⁶ See TR at 145:24 through 146:1.

 $^{^{117}}$ See TR at 147:9-11.

¹¹⁸ See TR at 147:11-15.

¹¹⁹ See TR at 147:18-21.

¹²⁰ See TR at 150:3-12.

¹²¹ See TR at 152:18-24.

¹²² See TR at 152:4-8.

¹²³ See Hearing Exhibit No. 14, Pre-Filed Direct Testimony of Jay Glaser, PointeNet, at 1.

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customer service, installations, network monitoring and maintenance, marketing and sales. 124 He has been working for various internet service providers and communications companies since $2014.^{125}$

Mr. Glaser's testimony indicated PointeNet provides resold services over infrastructure owned and operated by Future Tech. 126 Mr. Glaser testified that PointeNet offers services in all areas covered by the above-captioned applications with the exception of NUSF-99.88, 99.89, 99.92, and 99.113 through 99.117. 127 Mr. Glaser testified that PointeNet did not receive support or funding from any level of government for its services. 128

Under cross-examination, Mr. Glaser testified that PointeNet provides broadband service at a speed of at least 10/1 Mbps in the areas covered by Application Nos. NUSF-99.81 through NUSF-99.110.¹²⁹ Mr. Glaser testified that PointeNet was in most of those census blocks. PointeNet is not in NUSF-99.88 and NUSF-99.99.¹³⁰ Mr. Glaser clarified that PointeNet has customers in those areas, although he testified, they have the ability to provide service in the other census blocks.¹³¹ PointeNet does not offer voice service.¹³² He does not keep records of speed tests.¹³³ However, he testified, he has a pretty good idea what speeds customers are receiving because when they are on site, they verify that they can reach the speed PointeNet is advertising and the customer is requesting.¹³⁴ Mr. Glaser testified

 $^{^{124}}$ See id.

 $^{^{125}}$ See id.

 $^{^{126}}$ See id.

¹²⁷ See id.

 $^{^{128}}$ See id.

¹²⁹ See TR at 155:10-19.

¹³⁰ See TR at 155:23-25.

¹³¹ See TR at 156:11-17.

¹³² See TR at 156:18-22.

¹³³ See TR at 157:8-10.

¹³⁴ See TR at 157:3-6.

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that PointeNet is a reseller of Future Tech and does not file Form 477 data. 135

Mr. Justin Henrichs testified for Diode Communications (Diode). Mr. Henrichs is the Director of Network Operations for Diode. ¹³⁶ He has been employed with Diode for ten years. ¹³⁷ He is responsible for design, engineering, and overseeing the communications network including Diode's 45-tower fixed wireless internet systems which serve approximately 30 communities in southeast Nebraska. ¹³⁸

Diode filed a Protest against 37 applications Windstream filed. In areas where Windstream seeks funding, Diode has five towers 139 . On those towers, Diode either has RADWIN electronics, which are capable of delivering speeds exceeding 25/3 Mbps. Those systems are also capable of providing VoIP. 140

Mr. Henrichs indicated in his testimony that Diode currently offers services in areas covered by Applications NUSF-99.82 through 99.85, 99.92, 99.93, 99.96, 99.111 and 99.112. 141 He further stated that Diode did not receive any government support for any of the facilities in those areas. 142

Under cross-examination, Mr. Henrichs testified he could not say in which census blocks Diode is providing service because the information was not in front of $\lim_{n \to \infty} 143$ Diode does not offer its own

¹³⁵ See TR at 157:23 through 158:3.

 $^{^{136}}$ See Hearing Exhibit No. 15, Pre-Filed Direct Testimony of Justin Henrichs, Diode Communications, at 1.

 $^{^{137}}$ See id.

 $^{^{138}}$ See id.

 $^{^{139}}$ See id.

 $^{^{140}}$ See id.

¹⁴¹ See id. at 2.

¹⁴² See id.

¹⁴³ See TR at 161:14-17

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braded voice service. 144 However, the network is capable of voice service. 145 Diode files Form 477 reports in all of the census blocks for which Windstream is seeking support from the NUSF. 146

In response to questions from Commissioners, Mr. Henrichs testified that Diode offers service of 25/3 Mbps.¹⁴⁷ The lowest package offered is a 6/1 Mbps service.¹⁴⁸

Mr. Randy Sandman testified for Diode Communications, Diller Telephone Company and the Rural Telecommunications Coalition of Nebraska. He testified he is the President of Diller Telephone Company. He also testified on behalf of Diode Telecom and its fixed wireless internet provider, Diode Communications. However, Mr. Sandman indicated he was primarily appearing on behalf of the Rural Telecommunications Coalition of Nebraska (RTCN) which consists of 16 rural telephone companies. 151

RTCN serves rural areas that are much less densely populated than the areas for which Windstream seeks support. RTCN is concerned about the integrity of the NUSF and use of scarce ratepayer funds to provide government grants to build fixed wireless towers in areas where there are already fixed wireless towers. 153

Under cross-examination, Mr. Sandman stated for RTCN he was testifying about his interest in the management of the NUSF. 154 Diller

¹⁴⁴ See TR at 161:18-25.

 $^{^{145}}$ See id.

¹⁴⁶ See TR at 162:1-11.

¹⁴⁷ See TR at 167:11-14.

¹⁴⁸ See id.

¹⁴⁹ See Hearing Exhibit No. 16, Pre-Filed Direct Testimony of Randy Sandman at 1.

¹⁵⁰ See id.

¹⁵¹ See id.

¹⁵² See id.

¹⁵³ See id.

¹⁵⁴ See TR at 169:21-25.

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receives NUSF support. Mr. Sandman testified that he would be surprised to learn that the density of Windstream's rural markets is less than the density of most RTCN members. RTCN members have submitted comments in the Commission's proceeding in NUSF-99 surrounding the distribution of support to price cap carriers like Windstream. Str.

In response to questions from Commissioners and staff, Mr. Sandman testified that Diode has 45 active wireless towers that it has built over the last 20 years. The wireless towers Diode built are outside of its own local exchange areas. Diode built them because the local incumbent was not providing broadband to those communities. Mr. Sandman testified that fiber based service is not the same as fixed wireless. Fixed wireless is not the same because of all of the variables that can come into play with geography. 162

WRITTEN ARGUMENTS

Post-hearing arguments were filed by counsel for the Applicant and Protestants.

Windstream argued the Protestants only generally alleged that they are providing broadband service in the areas of the projects generally. However, Windstream argued, the Protestants were unable to identify which particular census blocks broadband service was currently being offered nor were they able to identify the speeds

¹⁵⁵ See TR at 170:9-14.

¹⁵⁶ See TR at 172:3-10.

¹⁵⁷ See TR at 172:11-17.

¹⁵⁸ See TR at 174:1-8.

 $^{^{159}}$ See TR at 174:16 through 175:14.

¹⁶⁰ See id.

¹⁶¹ See TR at 178:4-15.

¹⁶² See id.

¹⁶³ See Windstream's Closing Argument (June 18, 2020) at 4.

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offered in any particular census block for which Windstream sought reimbursement. 164

In addition, Windstream argued the witnesses testifying on behalf of the Protestants all acknowledged that they were not providing voice service to customers in the census blocks for which Windstream was seeking reimbursement. On the other hand, Windstream has customers who are receiving VoIP services via Windstream's fixed wireless facilities.

Windstream argued the Commission should rely on precedent in approving applications for NUSF reimbursement in other cases which were not protested. In addition, Windstream does not believe NUSF-99.48 is dispositive relative to the issues presented in this proceeding. There, the Commission denied funding based upon the existence of an unsubsidized fixed wireless service provider, Glenwood Communications. Windstream further argued the Commission denied the application based on the potential for network interference. Network interference was not an issue raised in the current proceeding. In

Windstream argued where the Protestants refused to provide the number of households, divided by census block, eligible to receive broadband, that the Protestants missed their opportunity to validate the existence of broadband coverage. 172

¹⁶⁷ See id.

¹⁶⁴ See id.

¹⁶⁵ See id. at 5.

¹⁶⁶ Id.

¹⁶⁸ See id. at 6.

¹⁶⁹ See id.

 $^{^{170}}$ See id.

¹⁷¹ See id.

¹⁷² See id. at 8.

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Finally, Windstream argued the opinion testimony of Mr. Sandman should not be relied on as a basis for a decision in this matter. 173 Questions such as the policy in managing the NUSF program are regularly addressed through notice and comment proceedings such as the NUSF-99 docket. Mr. Sandman testified that RTCN filed comments with the Commission in NUSF-99. 174

The Protestants argued Windstream seeks NUSF support to construct fixed wireless towers in a territory it has had a duty to serve for decades. The Protestants argued the evidence adduced at the hearing clearly demonstrated that several unsubsidized carriers are already providing comparable broadband services throughout the entire footprint of Windstream's proposed project with the possible exception of some locations in the southeast area of the York exchange. According to the Protestants, they are providing broadband at speeds well in excess of 10/1 Mbps which is the threshold determined by the Commission in its NUSF-99 proceeding. The support to the protestants.

The Protestants argued that Windstream's claims in this 37-application proceeding are no different than they were in another proceeding in which the Commission denied its request for support. The Protestants pointed to Application No. NUSF-99.48 (Guide Rock Decision) where the Commission found that Windstream failed to meet the first criteria for determining support which was whether there was a comparable service provided by an unsubsidized competitor. The application of the proceeding in this 37-application proceeding are no different than they were in another proceeding in which the Commission denied its request for support. The proceeding in this 37-application proceeding in this 37-application proceeding in the proceeding in the Commission denied its request for support. The Protestants pointed to application proceeding in the Commission found that Windstream failed to meet the first criteria for determining support which was whether there was a comparable service provided by an unsubsidized competitor.

OPINION AND FINDINGS

We begin our analysis by reiterating that our previous decisions established guidance and criteria for requesting universal service fund support for capital improvement projects. One of our main

 $^{^{173}}$ See id.

¹⁷⁴ See id.

 $^{^{175}}$ See Intervenors' and Protestants' Closing Brief (filed June 18, 2020) at 1.

¹⁷⁶ See id. at 7.

¹⁷⁷ See id.

¹⁷⁸ See id. at 8.

¹⁷⁹ See id.

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objectives in reforming the funding mechanism was to be consistent with changes being made relative to federal universal service funding received by providers and to maximize the impact of finite universal service resources by awarding support for broadband in unserved and underserved areas.

In 2015, the Commission adopted findings in NUSF-99, Progression Order No. 1 (Progression Order No. 1) which established the criteria we are operating under today. The Commission decided to freeze the relative support allocations among the carriers and provided price cap carriers with an allocation of capital expense support and operating expense support for high-cost areas. The specific amounts are determined on an annual basis and are dependent in part upon the amount of revenue generated by NUSF remittances. Eighty percent of a price cap carrier's high-cost allocation must be used for specific approved broadband projects. 180 Twenty percent of a carrier's allocation is dedicated to ongoing maintenance support. The goal of the Commission's eighty percent allocation in Progression Order No. 1 was to require carriers to prioritize investment in their networks to expand broadband availability to areas that lacked broadband service.

Pursuant to the criteria adopted in Progression Order No. 1, carriers are required to first make an application for broadband build-out support. An application seeking support must include a timeline, description, budget, and subscribership information. In addition, as set forth by Progression Order No. 1, other providers may challenge an application by filing a protest or intervention within the time specified in the publication. the publication notices, other providers had 30 days from the date of publication to indicate they already serve the identified census blocks and should notify Windstream and the Commission that they offer broadband service at speeds of 10 Mbps downstream and 1 Mbps upstream or higher in the identified census blocks. 181

¹⁸⁰ Prior to these changes, carriers receiving support could use that support for ongoing or capital expenses as long as the support was being used for the provision, maintenance, and upgrading of services. The revised methodology requires carriers to use a majority of NUSF support for deploying and upgrading service to include broadband service with minimum speed objectives.

 $^{^{181}}$ The Commission has an open proceeding which, among other changes, would increase the minimum speed threshold to 25/3 Mbps; however, the current minimum speed threshold the Commission uses is set at 10/1 Mbps. Accordingly, for the purposes of these applications, that speed threshold is applied here.

Progression Order No. 1 also established eligibility criteria. The Commission found that it would 1) disallow broadband support in areas that already have an unsubsidized carrier providing comparable broadband service, and 2) would require an additional showing by the applicant for support sought in CAF II eligible areas that support is needed. 182 In both these respects, the burden is on the applicant to demonstrate that it meets the criteria adopted by the Commission.

Here, the Commission is asked to approve NUSF support for 37 fixed wireless projects proposed by Windstream in various exchanges it currently provides traditional telephone service as the incumbent local exchange carrier but where Windstream has not yet deployed a minimum level of broadband service defined by the Commission at speeds of 10/1 Mbps. While the Commission has provided NUSF support for fixed wireless projects in prior cases as Windstream argues, the Commission considers not only FCC Form 477^{183} data but also evidence supplied by other providers to determine whether an area is unserved with comparable broadband service. In these cases, despite the concession that there were other fixed wireless carriers offering service in many of the areas covered by the census blocks included in Windstream's 37 applications, Windstream contends the Commission should reimburse it for towers and equipment it has deployed and plans to deploy to provide broadband service.

The Protestants and Intervenors, with the exception of the RTCN members generally, claim to already provide fixed wireless service in the census blocks where Windstream is seeking support. These providers argue they have deployed such services using their own capital without the assistance of government subsidies. these providers argue the Commission should not give Windstream the requested two million dollars in funding to provide broadband service in direct competition with their existing service.

¹⁸² CAF II eligible areas are areas in which federal universal service support is explicitly provided for broadband deployment.

¹⁸³ FCC Form 477 data is provider-supplied data filed with the FCC on a semi-annual basis depicting coverage where they offer Internet access service at speeds exceeding 200 kbps in at least one direction. Providers must certify to the accuracy of their data and may be penalized for falsely reporting inaccurate data.

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As precedent, the Protestants point to the Commission's decision in NUSF-99.48 (Guide Rock) as a basis for denial. There, the Commission denied providing support for Windstream's fixed wireless project finding that there was another unsubsidized competitor offering comparable service in the area. In the order, the Commission also expressed concern about potential wireless interference causing a degradation of existing broadband service. That concern is not present in this case. However, the decision turned on the fact that the Commission found Windstream had not met the first prong of the Commission's criteria due to the existence of an unsubsidized competitor providing comparable service.

As it relates to the 37 applications, we must first determine whether Windstream has met the first prong of the Commission's NUSF-99 framework for providing NUSF support. We find they do not as it relates to 30 of the 37 applications. Similar to the Guide Rock case, we have concerns with approving these projects based on the evidence that there is a comparable broadband service being provided by an unsubsidized competitor. We do not, without further evidence, reject applications where Form 477 data shows the potential existence of fixed wireless coverage in an area. That is due to our concern that Form 477 data may overstate fixed wireless coverage. Windstream is correct that the Commission has historically approved some of its fixed wireless applications. However, in those cases, there was no protest and no additional evidence provided to support determination that a comparable service was already being offered in the project area. In this particular case, however, four of the Protestants' witnesses validated the existence of broadband coverage in proposed project areas. A majority of the proposed project areas were served collectively by the Protestants. According to the testimony, the Protestants indicated that they provide broadband service in a manner that meets the minimum speed threshold by the Commission for this program.

Windstream also argued that its fixed wireless service was a superior service as it claimed it provided both higher speeds and its own voice product. Comparing fixed wireless service against another provider's fixed wireless service is a unique challenge as the speeds achieved can depend greatly on terrain, distance from the tower, and capacity. Both the Applicant and the Protestants indicated that the service levels achieved may vary depending on the location of the customer. Both the Applicant and the Protestants indicate they utilize the most up to date equipment, and in some cases, the same equipment. Overall, we find Mr. Truell's testimony was persuasive

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that Future Tech provided comparable broadband service in the census blocks covered by the applications with the exception of NUSF-99.116 and NUSF-99.117 with speeds of at least 25/3 Mbps which is above the minimum service speed of 10/1 Mbps. We find the other Protestants likewise provided additional evidence that they provided comparable broadband service either through resold service or using their own equipment.

In light of our review of FCC Form 477 data and the evidence provided at the hearing, we find that 30 of the 37 Windstream applications fail to meet the first prong of eligibility, and therefore the applications for NUSF support for those projects should be denied. We conclude based upon the testimony and our own review of FCC Form 477 data, that there are portions of Windstream's project areas that will provide broadband service in areas where the Protestants do not. Those areas include the projects filed in the following applications: NUSF-99.105, NUSF-99.106, NUSF-99.113, NUSF-99.114 and NUSF-99.115, NUSF-99.116 and NUSF-99.117. There may be some overlap with the Protestants' footprint; however, according to FCC Form 477 data, there are areas Windstream is proposing to serve outside of those areas which may have unserved locations. These gaps are significant enough to persuade us to consider these areas eligible.

As it relates to the second prong of the Commission's NUSF-99 framework, we find Windstream has not requested NUSF support for CAF II eligible areas. No party disputed this. Windstream has carved out CAF II eligible areas in its support requests. We find that Windstream has met both criteria for eligibility with respect to seven of the above-captioned applications which are as follows: NUSF-99.105, NUSF-99.106, NUSF-99.113, NUSF-99.114, NUSF-99.115, NUSF-99.116, NUSF-99.117. We further find these seven applications should be granted.

Windstream estimated the total deployment cost for the seven projects approved herein would be \$961,342 and is seeking NUSF support in the amount of \$461,255. The difference between the total project costs and the requested funding is because Windstream is not seeking funding in the areas funded by the CAF Phase II program.

For the projects not yet built, Windstream estimated the project will be completed within 180 days of application approval. Windstream committed to providing broadband service to all households in the project area for a minimum of five years.

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The Commission staff conducted an analysis of the census blocks submitted and compared the information against the Connect America Fund Phase II eligible areas. The Commission staff also reviewed the census block information and compared it to its wireline Broadband Mapping data, which uses FCC Form 477 deployment data collected by the FCC biannually. The Commission finds support should be granted in the amount of \$461,255.

Requests for Reimbursement:

Windstream must first make the investment and then may file a request for reimbursement with the NUSF Department. Windstream does not need to complete the construction process prior to seeking reimbursement; rather, it may work with the NUSF Department to develop intervals at which reimbursement can be sought. The NUSF Department will reimburse Windstream for capital improvement costs made relative to and as included in the application filed by the company for the projects approved in this Order. Once the investment is made, Windstream shall file a request for support, provide the NUSF Department with documentation consistent with Department policy and shall certify to the Department that it had made the described investment for the provision, maintenance and upgrading of facilities and services in the described rural areas.

Reporting Requirements:

Windstream shall file, on an annual basis, consistent with federally designated eligible telecommunications carriers (ETCs), the information required by the Commission's Telecommunications Rules pertaining to ETCs and the investment information required by the Commission's Order in Docket NUSF-66. The report should make clear to the Commission that Windstream will not request reimbursement for equipment where grant money was also received from another source. Windstream must also demonstrate its ability to remain functional in emergency situations, including a demonstration that it has a reasonable amount of back-up power to ensure functionality without an external power source, is able to reroute traffic around damaged facilities, and is capable of managing traffic spikes resulting from emergency situations.¹⁸⁴

 $^{^{184}}$ See 47 C.F.R. § 54.202(a)(2).

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We further remind Applicant that consistent with the Commission's ETC requirements in Title 291 Neb. Admin. Code, Chapter 5, § 009.04A3, the Commission requires all ETCs to report on the number of unfulfilled requests for broadband service on an annual basis. Applicant must notify the Commission of any requests for broadband that it was not able to fulfill in the service territory where support is provided. At a minimum, Applicant should identify the following information in its annual ETC report to the Commission: 1) the support area, 2) a description of the measures taken, and 3) the reasons for its inability to provide the requested service. Windstream shall file its annual report on or before June 1 of each year.

As a condition of receiving support, ETCs must offer broadband service in the supported areas that meet certain basic performance requirements. Upon completion of the project approved herein, we require Applicant to demonstrate compliance with certain minimum performance requirements. We require Applicant to provide evidence that the service deployed using NUSF support is provided as indicated in the application. Applicant must conduct testing for both speed and latency and provide results from those tests. We will afford Applicant the flexibility to measure performance across deployments in a manner that is best suited to determine the speed and latency of the service provided to end user consumers. However, Applicant must indicate how they measured broadband performance, including whether it was consistent with existing network management systems, ping tests, or other commonly available network measurement tools, a provider-developed self-testing configuration, or results from the FCC's Measuring Broadband in America (MBA) program. 185 information should be filed no later than 90 days following completion of the supported project(s).

In addition, an ETC has an obligation to advertise the availability of services that are supported by universal service support mechanism using media of general distribution. To ensure that this obligation is met, the Commission requires Applicant to

¹⁸⁵ See In Re Connect America Fund, CAF Phase II Price Cap Service Obligation Order, WC Docket No. 10-90, 28 FCC Rcd at 15071, paras. 23-25 (October 31, 2013); see also Performance Measures Public Notice, 32 FCC Rcd at 9323, para. 6 (December 6, 2017) and In re Connect America Fund, WC Docket No. 10-90, Order, 33 FCC Rcd 6509 (July 6, 2018).

¹⁸⁶ See 47 C.F.R. § 54.201.

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provide it with a copy of its marketing materials to consumers as well as a description of how the supported service was advertised.

Applicant shall be required to complete the approved projects within two (2) years from the date of this Order unless good cause is shown for a later completion date.

Broadband Commitments:

The Commission maintains broadband availability data and updates that information on at least an annual basis. As a condition of this support, Windstream must report broadband availability to the Commission upon request. Windstream must also confirm that it will not seek duplicative support through the FCC's funding mechanisms.

Other Issues:

While not dispositive here, we also note that Windstream's goal of providing a more cost-effective fixed wireless alternative in these areas does not necessarily align with the Commission's broader strategic plan which seeks to maximize fiber deployment with NUSF funding. The annual support allocations carriers receive are based upon the Commission's cost model, the State Broadband Cost Model (SBCM), which assumes a fiber network will be deployed, or fiber-to-the-premises deployment. Is In 2017, in our NUSF-100 proceeding, which looked at the size of the NUSF program and contributions, the Commission released its overall vision for universal service support. Among its goals, the Commission included the following: 1) ubiquitous deployment of broadband; 2) preserving and advancing affordable voice service; and 3) the deployment of fiber-based networks everywhere.

With respect to fiber, the Commission found that supporting fiber would be the better long-term investment, however, the Commission would consider other long-term wireline broadband solutions that are scalable for the future, meet the needs of consumers, and will be compatible with the next generation 911 network. While the Commission has not precluded the use of NUSF support for fixed wireless technologies; and indeed, it has permitted funding for several of Windstream's fixed wireless projects in cases that were uncontested, the Commission has expressed a preference for

 $^{^{187}}$ The SBCM is the state variation of the cost model adopted by the FCC for use in its universal service fund high-cost program.

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fiber-based solutions. Windstream's notion that it is a better policy decision to deploy broadband service through what they categorize as a cheaper technology simply because fiber is too costly undermines the need for NUSF support. NUSF support is needed because we recognize that fiber deployment in rural areas is more costly. We have recognized it is uneconomic to replace copper with fiber facilities in rural areas absent support. Windstream's fixed wireless deployment model on the other hand calls into question the necessity of NUSF support when other providers utilizing the same technology have deployed services in these areas without a subsidy.

We encourage Windstream to file applications in areas that are not presently served by a comparable broadband service provider. As it relates to these applications, we find that Windstream has not met the criteria of NUSF-99 Progression Order No. 1, for 30 of the 37 applications because of the existence of comparable services being provided by unsubsidized competitors. For the seven applications approved herein we find Windstream shall receive the support requested which is subject to the terms and conditions described herein.

ORDER

IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that the above-captioned applications for universal service support be granted in part and denied in part as described herein.

ENTERED AND MADE EFFECTIVE at Lincoln, Nebraska, this 20th day of October, 2020.

NEBRASKA PUBLIC SERVICE COMMISSION

COMMISSIONERS CONCURRING:

In Schram

ATTEST:

Executive Director

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Commissioner Crystal Rhoades Dissenting:

I respectfully dissent. The Commission has made funding available for broadband deployment and expressed a preference for long-term scalable technology such as fiber-based projects. I do not believe that using NUSF support for fixed wireless service provides the best use of our funding. I do not consider the fixed wireless service proposed in this application to be a comparable service to other wired technology. Nor do I consider it as reliable. I am not convinced that this is sound investment as I understand the hardware does not last as long as fiber deployment.

Moreover, I do not believe consumers want fixed wireless as their only broadband-based solution. While it may be better than no broadband service, I think we owe it to our consumers to use NUSF support with the best long-term investment goals in mind.