

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

In the Matter of )  
 )  
Connect America Fund ) WC Docket No. 10-90  
 )  
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**COMMENTS OF THE ALASKA RURAL COALITION**

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## **I. Introduction.**

The Alaska Rural Coalition<sup>1</sup> (“ARC”) files its Comments in this proceeding pursuant to the Public Notice issued by the Wireline Competition Bureau, Wireless Telecommunications Bureau and the Office of Engineering (collectively “Commission”) on October 16, 2014 seeking comment on the proposed methodology for Connect America high-cost universal service support recipients to measure and report speed and latency performance to fixed locations.<sup>2</sup> The ARC remains gravely concerned about the implications of onerous speed and latency benchmarks on small, rural Rate of Return carriers.<sup>3</sup>

The ARC membership consists of most of the rate of return incumbent rural local exchange carriers (“RLECs”) in Alaska, all of whom serve some of the highest cost areas of the nation. ARC members are generally small, rural telephone companies and cooperatives that serve tribal lands and endeavor to bring the highest quality of service

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<sup>1</sup> The ARC is composed of Adak Telephone Utility, Alaska Telephone Company, Arctic Slope Telephone Association Cooperative, Inc., Bettles Telephone, Inc., Bristol Bay Telephone Cooperative, Inc., Bush-Tell, Inc., Circle Telephone & Electric, LLC, City of Ketchikan dba Ketchikan Public Utilities, Copper Valley Telephone Cooperative, Cordova Telephone Cooperative, Inc., Inc., Interior Telephone Company, Inc., Matanuska Telephone Association, Inc., Mukluk Telephone Company, Inc., North Country Telephone Inc., Nushagak Electric and Telephone Company, Inc., OTZ Telephone Cooperative, Inc., and The Summit Telephone and Telegraph Company, Inc.

<sup>2</sup> *Proposed Methodology for Connect America High-Cost Universal Service Support Recipients to Measure and Report Speed and Latency Performance to Fixed Locations*, Proposed Rule, 79 Fed. Reg. 69091-69095 (Nov. 20, 2014) (“Public Notice”).

<sup>3</sup> See *Comments of the Alaska Rural Coalition, Connect America Fund, et al.*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, WT Docket No. 10-208, before the Federal Communications Commission (Jan. 18, 2012) (“ARC USF Comments”) at 32 (“Unfortunately, providing the speed, latency or capacity required by the Commission for CAF support for satellite service is not yet capable in most areas of Alaska.”).

possible to Alaskans. The telecommunications network in Alaska differs dramatically from the network in the Lower 48.<sup>4</sup> The assumptions that apply to the Lower 48 cannot be easily or fairly applied to Alaska. The Commission must be cautious or it will impose requirements that will overwhelm carriers attempting to provide broadband in the most challenging environment and foreclose the expansion of quality, robust service.

The extension of speed and latency standards previously imposed upon price cap carriers on rate of return carriers and ETCs that receive Connect America support poses some problems. The networks and available resources between the large price cap companies and the small rate of returns and ETCs cannot be easily translated. The scope and scale available to the larger, national companies are simply not available to small companies serving rural areas with less predictable and less affordable middle mile resources.

## **II. Measuring Compliance with Speed and Latency Service Obligations Difficult in Alaska.**

The Commission seeks to develop a record on the methodology to be implemented for testing compliance with service obligations.<sup>5</sup> The ARC appreciates the Commission

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<sup>4</sup> *ARC USF Comments* at 4-5 (“The ability to meet such a benchmark depends on the availability of reliable and affordable middle mile, which are lacking most areas of Remote Alaska. Satellite transport for middle mile is too unreliable and expensive in Alaska to accomplish that speed.”); *see also Comments of Alaska Communications Systems, Connect America Fund, et al.*, WC Dockets No. 10-90, 14-58, 07-135, WT Docket No. 10-208, CC Docket No. 01-92, before the Federal Communications Commission (Aug. 8, 2014) (“*ACS CAF Phase II Comments*”) at 7 (“Alaska’s lowest-in-the-nation population density makes terrestrial transport options inefficient, while its extreme northern location limits the performance of satellite-based alternatives (and satellite may or may not meet their performance requirements).”).

<sup>5</sup> *Public Notice* at para. 5.

developing a better record rather than imposing standards on rate of return companies that may have unintended consequences. The ARC believes that some method of insuring that carriers are providing the level of service advertised to consumers serves the public interest.

The Commission proposes to adopt a methodology that measures speed and latency between the customer premises and the nearest designated Internet core peering interconnection point (“IXP”).<sup>6</sup> The difficulty in this basic assumption derails a further analysis of the details of the methodology because the location of the nearest United States designated IXP for companies in Alaska is Seattle, Washington.<sup>7</sup> Companies must purchase transport over undersea cables to reach the IXP. ARC companies do not own or control the undersea cables which makes controlling the speed and latency very difficult.<sup>8</sup> The sheer distance from the IXP adds even further difficulty.<sup>9</sup> Holding a small rate of

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<sup>6</sup> *Public Notice* at para. 3.

<sup>7</sup> See Internet Exchange Map, TeleGeography, available at <http://www.internetexchangemap.com/>.

<sup>8</sup> See Submarine Cable Map, TeleGeography, available at <http://www.submarinecablemap.com/>. Of the four undersea cables connecting Alaska to the Lower 48, two are owned by GCI and two are owned by Alaska Communications Systems Group (“ACS”). *Id.*

<sup>9</sup> For illustrative purposes, Adak Island is approximately 3,800 meters from Seattle. The only economically feasible technology to cover this distance is satellite. One-way latency from the ground to a satellite in geosynchronous orbit is approximately 250 ms. *Hans Kruse, Data Communications Protocol Performance on Geostationary Satellite Links – Lessons Learned Using Acts*, Ohio State University, available at <http://www.its.ohiou.edu/kruse/publications/aiaa96.pdf>. The roundtrip (from earth, to the satellite, and back to another point on earth) is double that, or approximately 500 ms. *Id.* Thus, the minimum latency that can be expected for any location that requires geosynchronous satellite transport is 500 ms. Latency can be reduced by using satellites in low earth orbit, which are closer to earth and therefore have a shorter distance to travel, however these satellites require more complex technology and are frequently more expensive.

return company or other ETC accountable for performance over those cables and distances, and potentially imposing consequences for performance failures does not serve the public interest or the Commission's stated desire to improve and expand broadband speeds.

The ARC believes that the challenge of creating a methodology to take the distance of the IXP from the customer premise can be overcome with time and accommodation. The additional problem of middle mile infrastructure poses a serious challenge to meeting the Commission's proposed speed and latency requirements.<sup>10</sup> Many locations in Alaska continue to rely on satellite connectivity to bridge the gap between the consumer in Remote Alaska and Anchorage (where fiber transport must still be purchased to transport traffic) or directly to Seattle. Rate of return companies and

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<sup>10</sup> See *Comments of Alaska Communications Systems Group, Inc.*, Connect America Fund, High-Cost Universal Service Support, WC Docket Nos. 10-90, 05-337, before the Federal Communications Commission (July 9, 2012) (“*ACS CAF Comments*”) at 8 (“The Commission’s model ignores the costs of extremely long haul middle mile transport in Alaska, especially by satellite and undersea cable, which are necessary to support delivery of the broadband speeds mandated by the Commission.”); *Comments of General Communication, Inc.*, Connect America Fund, *et al.*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, before the Federal Communications Commission (Jan. 18, 2012) (“*GCI USF Comments*”) at 28 (“As discussed above, middle-mile costs will be a significant (but not the only) component of the high costs of delivering any type of broadband – whether fixed or mobile – to Remote Alaska. . . middle mile is an essential component of providing affordable and reasonably comparable broadband services to rural Alaska, and of creating a communications infrastructure that can support critical public health, education and safety needs.”); *Comments of the Regulatory Commission of Alaska*, Connect America Fund, *et al.*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, before the Federal Communications Commission (Jan. 18, 2012) (“*RCA Comments*”) at 19 (“Funding for middle mile infrastructure is essential to deployment of broadband in Alaska.”).

other ETC serving these remote areas cannot be held to the same speed and latency standards imposed upon price cap carriers.<sup>11</sup>

The ARC appreciates the Commission's recognition of Alaska's difference in the Report and Order establishing benchmarks for fixed broadband services in October.<sup>12</sup> The Commission waived the benchmarks in Alaska on its own Motion.<sup>13</sup> The waiver provides the Commission and Alaska industry time to develop a more appropriate benchmark to reflect the unique nature of the state. The ARC agrees with the Alaska Telephone Association that a similar waiver would be appropriate in this circumstance. In the same way that reasonable comparability benchmarks required further study, the ARC respectfully suggests that the speed and latency metrics and methodology also warrants a waiver. The lack of adequate and affordable middle mile infrastructure in Alaska and the remoteness of the IXP to the consumers being served justify the waiver. The waiver allows all of the parties involved to work together on a comprehensive plan to address the significant middle mile and IXP issues facing Alaska and preventing Alaska consumers from enjoying the robust broadband most Americans take for granted.<sup>14</sup>

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<sup>11</sup> The ARC cannot even support the imposition of these speed and latency standards on the only price cap carrier to serve Alaska, ACS. In the remote Bush communities served by ACS middle mile is provided by satellite connection.

<sup>12</sup> See Connect America Fund, WC Docket No. 10-90, *Report and Order*, DA 14-1569 (rel. Oct. 29, 2014) ("*Report and Order*").

<sup>13</sup> *Report and Order* at para. 12 ("On our own motion, we waive implementation of the reasonable comparability benchmarks for Alaska carriers for 2015 to allow further time to study this issue and determine whether an alternative methodology should be adopted for Alaska.").

<sup>14</sup> *RCA Comments* at 19 ("Funding for middle mile infrastructure is essential to deployment of broadband in Alaska."); *ACS CAF Comments* at 8 ("The Commission's model ignores the costs of extremely long haul middle mile transport in Alaska, especially by satellite and undersea cable, which are necessary to support delivery of the broadband speeds mandated

Regulatory compliance can impose great cost on the regulated. The ARC urges the Commission to consider the cost of compliance when designing a methodology for rate of return companies. Overburdening small companies who strive to provide robust broadband will slow investment in needed infrastructure and frustrate the policy goals of the Commission. The largest providers currently participate in the MBA program, but the cost could exceed the ability of small carriers to participate.<sup>15</sup> The ARC would support allowing “citizen testing” of some sort to determine when a for-cause audit would be appropriate.<sup>16</sup> The ARC also believes that state commissions play an important role in monitoring the speed and latency. It is more efficient to monitor and resolve concerns about local broadband speed and latency at the state level.

### **III. Conclusion.**

The ARC urges the Commission to act cautiously as it considers implementing methodology regarding speed and latency benchmarks. The unintended consequences of applying price cap carrier rules to rate of return carriers could be potentially significant. Alaska is a particularly challenging state to apply nationwide benchmarks to. The ARC

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by the Commission.”); *Comments of General Communication, Inc. on the CAF Phase I Unserved Areas List*, Connect America Fund, WC Docket No. 10-90, before the Federal Communications Commission (Jan. 9, 2013) at 28 (“As discussed above, middle-mile costs will be a significant (but not the only) component of the high costs of delivering any type of broadband – whether fixed or mobile – to Remote Alaska. . .middle mile is an essential component of providing affordable and reasonably comparable broadband services to rural Alaska, and of creating a communications infrastructure that can support critical public health, education and safety needs.”)

<sup>15</sup> *Public Notice* at para. 15.

<sup>16</sup> *Public Notice* at para. 23.

supports the ATA's waiver request and believes the public interest is best served by a slow and deliberate approach to regulating broadband in Alaska.

Respectfully submitted on this 22<sup>nd</sup> day, December 2014.

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