

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Establishing Emergency Connectivity) WC Docket No. 21-93
Fund to Close the Homework Gap)

COMMENTS OF GCI COMMUNICATION CORP

Christopher Nierman
Vice President and Senior Counsel
GCI COMMUNICATION CORP.
1900 L Street NW
Suite 700
Washington, DC 20036

Julie A. Veach
Matthew G. Miller
HARRIS, WILTSHIRE & GRANNIS LLP
1919 M Street NW
Eighth Floor
Washington, DC 20036
jveach@hwglaw.com
mmiller@hwglaw.com
202-730-1300

Counsel to GCI Communication Corp.

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On behalf of itself and its affiliates, GCI Communication Corp. (“GCI”) submits these comments in response to the Wireline Competition Bureau’s Public Notice regarding the Emergency Connectivity Fund (“ECF” or “Fund”).¹ GCI has seen first-hand how students in some of the most remote and impoverished parts of Alaska have been affected by the lack of home connectivity to school during this pandemic. GCI urges the Commission to focus on quickly and efficiently distributing support to ensure that our most vulnerable students do not fall further behind during the remainder of this national emergency. GCI looks forward to working with the Commission through the Emergency Connectivity Fund.

I. BACKGROUND AND GCI’S PANDEMIC RESPONSE FOR REMOTE LEARNING

GCI was founded in Alaska and has spent the past four decades providing service to some of the most remote and challenging areas in America. In 1997, shortly after the Telecommunications Act of 1996 became law, GCI worked with educators to design distance learning offerings that were focused on addressing the needs of students in underserved areas of Alaska. Today, GCI Education, a division of the company dedicated to serving the needs of school and libraries, is the service provider for more than 160 schools and 85% of rural students in Alaska. GCI is Alaska’s most experienced provider of broadband connectivity to schools.

Alaska is a uniquely challenging state in which to provide connectivity services to schools. The state’s approximately 127,000 K-12 students are spread across more than 570,000 square miles—an area larger than Texas, California, and Montana combined.² A significant

¹ *Wireline Competition Bureau Seeks Comment on Emergency Connectivity Fund for Educational Connections and Devices to Address the Homework Gap During the Pandemic*, Public Notice, DA 21-317, WC Docket 21-93 (rel. Mar. 16, 2021) (“*Public Notice*” or “*Notice*”).

² *See Quick Facts: Alaska*, U.S. Census Bureau, <https://www.census.gov/quickfacts/fact/table/AK/SBO020212#SBO020212> (last accessed

number of these students live in remote villages, which are only reachable by air, boat, or snowmachine. Over 36% of Alaska’s schools have fewer than one hundred students, with ninety schools serving fewer than thirty students.³

The E-Rate program transformed education in Alaska. Prior to the pandemic, many students in Alaska already relied on advanced telecommunications services in schools for access to the classes and resources students in many parts of the country take for granted. Due to the villages’ small size and geographic dispersion, distance learning was the only way many students could receive math, science, or other necessary instruction that met federal requirements under the No Child Left Behind Act. Distance learning facilitated by the E-Rate Program allowed students to stay in their small, remote villages and receive educational opportunities that previously required moving away to boarding schools.

Like the rest of America, COVID-19 upended education in Alaska. GCI sought to help the transition to remote learning. First, shortly after the Governor of Alaska officially declared a statewide emergency, GCI offered free or upgraded internet service for all households within GCI’s service area through the end of the 2019-2020 school year.⁴ As it became clear that schools would remain closed indefinitely, GCI Education worked to find innovative ways to facilitate remote learning.

March 25, 2021); *Data Center*, Alaska Dep’t. of Education & Early Development, <https://education.alaska.gov/data-center> (last accessed March 25, 2021).

³ See *Data Center*, Alaska Dep’t of Education & Early Development, <https://education.alaska.gov/data-center> (last accessed March 25, 2021).

⁴ See *Free Entry-Level Home Internet Through May 31, 2020*, GCI Blog (March 20, 2020) <https://blog.gci.com/free-entry-level-home-internet-through-may-31-2020/>.

For the 2020-2021 school year, the company partnered with certain Alaska school districts to offer GCI's School from Home service.⁵ With this service, the school district is able to set up a portal that allows students at home to connect directly to their school's network or to other educational content approved by the school district. There are two main components to School from Home: student connectivity and the school-managed portal.

For student connectivity, the schools worked with GCI to send students the applicable network interface device, such as a cable modem or a Wi-Fi hotspot. The network traffic routed through these devices is collected at the distribution point (e.g., the cable headend) and directed to the school's network instead of to the wider internet. Students with existing internet access connect to the service by logging into a VPN app.

For the portal, the school has a firewall that allows it to manage the students' use of the service. In addition to video conferencing and teacher-created materials, students may access educational resources like the Alaska Statewide Library Electronic Doorway and the Institute for Excellence in Writing. Some schools have also purchased large bandwidth internet service and use their firewall to provide filtered internet access to their students. The equipment and use of the portal are provided at no cost to the students.

Ultimately, GCI provided over 5,700 students and staff with network interface devices and even more with access to their schools via this program. While GCI is proud of its response to the pandemic and is awed by what schools have accomplished with limited resources, these programs are not sufficient to address the full scope of our current remote learning crisis. GCI was able to extend free or upgraded services, but this was a temporary fix for an ongoing

⁵ See Annette Jones, *GCI Works to Connect Students and Close the Homework Gap*, GCI Blog (January 7, 2021) <https://blog.gci.com/gci-works-to-connect-students-in-need-and-close-the-homework-gap/>.

problem. Similarly, the School from Home offering is a substantial achievement but GCI has only been able to partner with the seven of Alaska's 54 school districts that are located in GCI's or UUI's residential service areas.⁶ While 44% of Alaska's students live in the partner districts, not every student has been connected due to network capacity limitations. These programs have been a vital resource for supporting remote learning in Alaska but they are only partial stopgaps. The Emergency Connectivity Fund is needed to empower schools to broadly address students' ongoing remote learning needs for the remainder of the emergency.

II. THE FUND SHOULD NOT COMPOUND THE HOMEWORK GAP BY IMPOSING UNNECESSARY MINIMUM STANDARDS

The Bureau asked for comment on whether to "impose minimum service standards and data thresholds" when determining eligible services.⁷ GCI urges the Commission to consider the current state of broadband deployment and to not set a standard that excludes a significant number of students in rural and Tribal areas. Further, the Commission should make sure any minimum standard it may impose does not overstate the speeds that are required to effectively engage in remote learning. Other commenters' insistence on a 25 Mbps download and 3 Mbps upload minimum for eligibility under the Fund will mandate more bandwidth than is required to participate in remote learning and will unnecessarily exclude students already grappling with the Homework Gap, and who live in communities where Internet access speeds are constrained by the backhaul technology that reaches the community.

⁶ United Utilities, Inc, or UUI, is the incumbent local exchange carrier affiliate of GCI.

⁷ *Public Notice* at 7.

A. Students in Many Rural and Tribal Areas Will Be Excluded If the Commission Adopts a 25/3 Mbps Minimum Speed Requirement

In the *Public Notice*, the Commission asked whether applying its current minimum broadband speed threshold of 25/3 Mbps is “appropriate” for the Fund.⁸ The Commission is rightfully concerned that the Fund should only be used to purchase services that can be used for remote learning. However, if minimum standards are too rigorous, the Commission will exclude large portions of rural America whose networks cannot support such speeds, and thus undercut the goals of the Fund.

Alaskan providers face many significant challenges, which the Commission has previously recognized. These include “Alaska’s large size, varied terrain, harsh climate, isolated populations, shortened construction season, and lack of access to infrastructure.”⁹ In addition, much of Alaska does not exist on an interconnected road or rail system, and thus lacks fiber middle mile facilities. These communities rely on microwave or satellite links to carry internet traffic from local villages to Anchorage, where it is routed by undersea cable to an internet peering point in the Lower 48.

In the face of these challenges, GCI and other Alaska service providers are working constantly to improve speeds, capacity, and access. For example, GCI’s “Alaska United – Aleutians Fiber Project” will provide high-speed broadband access, at the speeds available in Anchorage, to six underserved communities along the Aleutian Island chain.¹⁰ The crux of this

⁸ *Id.* at 8.

⁹ *Connect America Fund - Alaska Plan et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd. 10139, 10141–42 ¶ 5 (2016) (“*Alaska Plan Order*”).

¹⁰ *GCI Awarded \$25 Million Federal Grant to Bring Urban Internet Speeds to Remote, Underserved Aleutian Communities*, Press Release, GCI (Oct. 14, 2020) <https://www.gci.com/about/news-releases-archive/gci-aleutian-fiber-project-announcement>.

project is the construction of a new long-haul subsea fiber system approximately 800 miles in length, along with improvements to the local access networks. Assuming the project receives the necessary regulatory approvals in a timely manner, GCI expects to turn up service by the end of 2022.

The Commission expressly recognized Alaska's unique challenges when it adopted the Alaska Plan performance plans, tailoring broadband performance benchmarks to the type of backhaul available to a community.¹¹ Under the Alaska Plan, participating incumbent local exchange carriers serving remote Alaska receive a fixed amount of high-cost support over 10 years in exchange for carrier-specific commitments to maintain and upgrade broadband services. The participating carriers have collectively committed to upgrade over 30,000 locations to 25/3 Mbps by the end of 2021, more than quadrupling the number of locations with service at that speed. While that represents substantial progress, it recognizes that backhaul constraints mean that nearly 50,000 remote Alaska locations will have service under 25/3 Mbps—and some locations will continue for now to receive service at 4/1 Mbps or lower.¹² Included usage, too, is

¹¹ See *Alaska Plan Order* at 10,146 ¶ 17 (“[W]e recognize that due to limitations in access to middle mile infrastructure and the variable terrain, Alaskan carriers may not be able to serve all of their locations at the current minimum speeds for Connect America Fund recipients of 10/1 Mbps speeds with the support they are provided through the Alaska Plan. Accordingly, we authorize the Wireline Competition Bureau to approve performance plans that propose to offer Internet service at relaxed speeds to a set number of locations to the extent carriers face such limitations”).

¹² See *Wireline Competition Bureau Authorizes Alaska Plan Support for 13 Alaskan Rate-of-Return Companies*, Public Notice, 31 FCC Rcd. 13,347, Appx. B at 5 (WCB 2016) (showing that 5 Alaska Plan ILECs will maintain 2016 service levels through 2026 and showing the commitments of Bristol Bay Telephone Cooperative, Inc.); Letter from Christine O'Connor, Executive Director, Alaska Telephone Association, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90 (filed May 9, 2016) (attaching commitments of OTZ Telephone Cooperative); Letter from Christine O'Connor, Executive Director, Alaska Telephone Association, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-271 (filed Nov. 22, 2016) (submitting commitments of Cordova Telephone Cooperative, Interior Telephone Company, Matanuska Telephone Association, Nushagak Telephone Cooperative); Letter

constrained by the available backhaul. Additional locations will see upgrades in years six to 10 of the Alaska Plan, but the Commission directed participating carriers to prioritize bringing 10/1 Mbps service to additional locations “before upgrading speeds for locations that are already served with 10/1 Mbps.”¹³ For now the fact remains that many remote locations in Alaska will not have 25/3 Mbps in time for the Emergency Connectivity Fund.

The lack of broadband at 25/3 Mbps or better does not affect just Alaska, though. The Commission’s most recent Broadband Deployment Report shows persistent gaps in broadband access outside of our country’s urban areas.¹⁴ As of the data available at the time of the Report, in rural areas, 22.3% of people lack access to broadband at 25/3 Mbps, while in Tribal areas that number shoots up to 27.7%.¹⁵ The divide is even starker in Alaska – 33.5% of the residents of the Tribal villages cannot access broadband service at that speed.¹⁶ The Commission is rightly concerned with ensuring Tribal schools and libraries have access to the Fund.¹⁷ A sure way to

from Julie A. Veach, Counsel to General Communication, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-271 (filed Nov. 29, 2016) (providing commitments of United Utilities, Inc. and Yukon Telephone Company, Inc.); Letter from Christine O’Connor, Executive Director, Alaska Telephone Association, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-271 (filed Dec. 6, 2016) (submitting commitments of Copper Valley Telephone); Letter from Chris Barron, Alexicon Telecommunications Consultants, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-271 (filed Dec. 29, 2020) (submitting commitments update of OTZ Telephone Cooperative); Letter from Daniel B. Lindgren, KPU Telecommunications, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-271 (filed Dec. 30, 2020) (attaching performance commitments).

¹³ *Alaska Plan Order* at 10146 ¶ 16.

¹⁴ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2020 Broadband Deployment Report, 35 FCC Rcd. 8986, 9003 ¶ 36 (2020).

¹⁵ *Id.* (reflecting deployment data as of December 2018).

¹⁶ *Id.* at 9015 Fig. 10 (reflecting data as of December 2018).

¹⁷ *See, e.g., Public Notice* at 5 (“We also seek comment on whether there are other measures the Commission can take to ensure Tribal schools and libraries have access to the Emergency Connectivity Fund.”); *id.* at 12 (“Recognizing the trust relationship between Tribal

undercut that goal is to exclude the many students on Tribal lands who cannot yet access 25/3 Mbps service.

As highlighted in the *Public Notice*, many students who lack home internet access are at risk of being completely cut off from all educational activities.¹⁸ The Emergency Connectivity Fund should be used to promote equity during this time of crisis, not exacerbate the Digital Divide. The Commission should not adopt a minimum standard that categorically excludes many students living outside of urban areas.

B. Lower Speed Broadband Can Support Meaningful Remote Learning

Notwithstanding the current challenges to providing faster internet speeds in rural and Tribal areas, remote learning can be successful. Video conferencing services—likely the most bandwidth-intensive remote learning applications—do not require 25/3 Mbps. And as GCI has experienced with its School from Home service and its E-Rate-funded services, schools are able to manage lower bandwidth connections to optimize their use for remote learning. Entire schools in remote villages in Alaska use less than 25/3 Mbps. These schools still provide online learning tools to their students and are able to participate in distance learning via videoconferencing. While faster speeds and unlimited usage are of course ideal, their absence does not prevent modern remote learning.

governments and the federal government, should the Commission allocate a portion of the Emergency Connectivity Fund for Tribal schools and libraries to ensure Tribal students, school staff and library patrons benefit from the Emergency Connectivity Fund?”).

¹⁸ *See id.* at 1.

Students do not need 25/3 Mbps internet access to use the leading commercial video conferencing services.¹⁹ Zoom recommends 1/.6 Mbps for group video calling.²⁰ Other services require similar bandwidth – Skype (2 Mbps/128kbps), Webex Meetings (1.75/1.65 Mbps), and Microsoft Teams (1/2 Mbps).²¹

It is also possible to optimize lower bandwidth services to maximize their use for remote learning. Schools in Alaska have achieved this by managing the students’ access to their networks and the internet. The students’ connectivity requires school-issued credentials and may only be used to access approved educational resources. This excludes non-students from monopolizing the bandwidth and blocks the entertainment sites that consume excessive bandwidth. Many students using School from Home have participated in interactive video lessons with their teachers and accessed online learning tools using 4/1 Mbps. Schools in areas with lower bandwidths have addressed multi-student households by providing multiple connections to the school. GCI has found that students are able to receive an effective remote learning experience using very little bandwidth.

¹⁹ The video conferencing providers mentioned here use different scenarios to estimate their respective service’s bandwidth requirements. All cited bandwidths are for video calls with at least five participants or for “group video” calls, if no specific participant count was listed.

²⁰ See *Bandwidth Planning in your Cisco Webex Meetings Environment White Paper*, Cisco (last updated Sept. 11, 2018), https://www.cisco.com/c/en/us/products/collateral/conferencing/webex-meetings/white_paper_c11-691351.html.

²¹ See *Skype Help – How much bandwidth does Skype need?* Microsoft, <https://support.skype.com/en/faq/FA1417/how-much-bandwidth-does-skype-need>; *System Requirements for Windows, macOS, and Linux*, Zoom, https://support.zoom.us/hc/en-us/articles/201362023-System-requirements-for-Windows-macOS-and-Linux#h_d278c327-e03d-4896-b19a-96a8f3c0c69c; *Prepare your Organization’s Network for Microsoft Teams*, Microsoft (March 23, 2021), <https://docs.microsoft.com/en-us/microsoftteams/prepare-network>.

Schools have spent the past year finding innovative ways to address the specific challenges faced by their students. This has required that schools become experts at leveraging their limited resources to continue educating their students in a new context. The Commission should be careful it does not unnecessarily restrict schools' ability to use the new funding to facilitate remote learning by rigidly limiting the eligible services.

III. THE COMMISSION SHOULD DESIGN THE FUND TO QUICKLY DISTRIBUTE SUPPORT TO SCHOOLS

Schools urgently need additional funding to help them ensure no students fall further behind due to lack of internet access. The Commission has a very short timeframe to set up the ECF.²² A simple, easy-to-understand process for applying for and receiving support is absolutely essential to the Fund's success.

GCI recommends that the Commission borrow any necessary procedures, as far as possible, from existing E-Rate program rules. This will allow the Commission and USAC to focus on developing the new rules absolutely required for the Fund. While the Commission was discussing specifically the use of E-Rate forms, GCI agrees that, even more generally, the "simplest process for applying for and receiving funding" will use "modified versions" of things "with which applicants are already familiar."²³

When promulgating new rules for the Fund, the Commission must weigh the perceived gains of novel rules against the difficulty school administrators will likely face navigating these unfamiliar rules. For example, the Commission asked for comment on whether it should prioritize funding based on the number of students "without adequate broadband access at home

²² See American Rescue Plan Act of 2021, H.R. 1319, 117th Cong., tit. VII, § 7402(a) (2021) (enacted) (requiring the Commission to issue regulations governing the Fund within sixty days of the Act becoming law).

²³ *Public Notice* at 13.

and/or that lack a connected device.”²⁴ It is unclear whether this approach would more effectively target support but it would certainly complicate the filing process for school administrators. Schools are under enormous strain and the focus should be on minimizing the novel requirements they must satisfy to receive support from the Fund. The Commission should avoid, where possible, using untested procedures.

* * *

GCI appreciates all the Commission has done to respond to the pandemic. Quickly establishing the Emergency Connectivity Fund and distributing support for remote learning is necessary to ensure that students are not completely cut off from school. GCI looks forward to working with the Commission to implement the Fund.

Respectfully submitted,



Christopher Nierman
Vice President and Senior Counsel
GCI COMMUNICATION CORP.
1900 L Street NW
Suite 700
Washington, DC 20036

Julie A. Veach
Matthew G. Miller
HARRIS, WILTSHIRE & GRANNIS LLP
1919 M Street NW
Eighth Floor
Washington, DC 20036
jveach@hwglaw.com
mmiller@hwglaw.com
202-730-1300

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²⁴ *Id.*