

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

In the Matter of)
)
Emergency Connectivity Fund for Educational) WC Docket No. 21-93
Connections and Devices to Address the)
Homework Gap During the Pandemic)
)

COMMENTS OF ADTRAN, INC.

ADTRAN, Inc. (“ADTRAN”) hereby comments on the Commission’s request for input¹ on the Congressionally-established \$7.171 billion Emergency Connectivity Fund as part of the recently enacted American Rescue Plan Act of 2021.² ADTRAN addresses a few of the issues raised in the *Public Notice*. As explained below, ADTRAN believes there are several steps the Commission should take that could enhance the effectiveness of the Emergency Connectivity Fund by ensuring that schools, libraries, students and patrons are able to obtain the most efficient services that will fulfill their needs.

ADTRAN, founded in 1986 and headquartered in Huntsville, Alabama, is a leading global provider of networking and communications equipment. ADTRAN’s products enable voice, data, video and Internet communications across a variety of network infrastructures. ADTRAN’s solutions are currently in use by service providers, schools and libraries, private

¹ *Public Notice*, Wireline Competition Bureau Seeks Comment on Emergency Connectivity Fund for Educational Connections and Devices to Address the Homework Gap During the Pandemic, DA 21-317, released March 16, 2021 (hereafter cited as “*Public Notice*”).

² American Rescue Plan Act, 2021, H.R. 1319, 117th Cong., tit. VII, § 7402 (2021) (enacted), available at <https://www.congress.gov/bill/117th-congress/house-bill/1319/text> (hereafter cited as “*American Rescue Plan Act*”) (enrolled bill).

enterprises, government organizations and millions of individual users worldwide. ADTRAN also provides services to schools under the E-Rate program. ADTRAN thus brings an expansive perspective to this proceeding, as well as an understanding of the importance to individuals, communities and our country of robust broadband.

The COVID-19 pandemic reinforced the necessity of households being able to subscribe to robust broadband in order to access remote education, and Congress recognized that for many low-income households, the cost of broadband service made it unaffordable. In addition, the remote education necessitated by COVID-19 has strained the broadband resources of schools and libraries, and the funding from this program can also address that need. ADTRAN applauds Congress' adoption of the Emergency Connectivity Fund, and the Commission's prompt efforts to implement that program.

In establishing the rules for the Emergency Connectivity Fund, the Commission must be mindful of its responsibility as the steward of this fund to minimize waste fraud and abuse. The *Public Notice* acknowledges this overarching goal.³ In addition, the Commission must be mindful of its obligation to follow Congress' intent and directives as spelled out in the language of the *American Rescue Act's* provisions addressing the Emergency Connectivity Fund. Both of these principles are relevant to the questions raised in the *Public Notice* concerning what services are eligible for reimbursement under the Emergency Connectivity Fund.⁴

³ *Public Notice* at p. 3 (“We seek comment on what rules the Commission should adopt to most efficiently and effectively distribute funding, mindful of the Commission’s obligation to protect against waste, fraud, and abuse in seeking to meet the connectivity needs of our nation’s students, school staff, and library patrons.”).

⁴ *Public Notice* at pp. 5-8.

One issue that that implicates both principles is whether the Commission should impose minimum performance requirements for service eligibility under the Emergency Connectivity Fund program, and at what levels.⁵ ADTRAN believes that it would be a serious waste of the Emergency Connectivity Fund to pay for services that cannot provide the requisite functionality to support the remote learning applications that are necessary to achieve the primary goal of this *American Rescue Plan Act* program.

A similar concern regarding wasted subsidies led the Commission to adopt provisions specifying minimum performance requirements for eligible broadband services supported by the Lifeline program.⁶ The minimum Lifeline performance standards for fixed broadband services specified in Section 54.408 for upload and download speeds and usage allowances would be a good baseline for the Emergency Connectivity Fund program to accomplish the goal of ensuring that the subsidized broadband service can provide the requisite functionality for remote education.⁷ While Section 54.408 also specifies minimum performance requirements for mobile

⁵ *Public Notice* at pp. 7-8.

⁶ *Lifeline and Link Up Reform and Modernization*, 31 FCC Rcd 3962 (2016), at ¶ 69:

In order for Lifeline customers to obtain the type of robust service which is essential to participate in today's society, we conclude that forward-looking minimum service standards are required, and that those standards must be updated on a regular basis. (citation omitted)

⁷ Section 54.408 set the performance requirements, and also provides for periodic updates. The current requirements for fixed broadband services were specified to go into effect on December 1, 2020. *Public Notice*, "Wireline Competition Bureau Announces Updated Lifeline Minimum Service Standards and Indexed Budget Amount," DA 20-820, released: July 31, 2020:

Pursuant to the *2016 Lifeline Order*, beginning December 1, 2020, the Lifeline minimum service standard for fixed broadband speed will be 25 Mbps downstream and 3 Mbps upstream, as calculated from FCC Form 477 data. ... Beginning December 1, 2020, the Lifeline minimum service standard for fixed broadband data usage will be 1024 GB per month, as calculated from Urban Rate Survey data. (citations omitted)

broadband services, the speeds and data allowances for mobile broadband are much lower,⁸ and would not ensure the appropriate functionality, particularly if there are multiple devices operating in the household simultaneously -- which would be expected if more than one child in the home is attending classes remotely. ADTRAN thus urges the Commission to require that broadband services eligible to be subsidized under the Emergency Broadband Connectivity Fund program – whether fixed or mobile -- would need to provide minimum download speeds of 25 Mbps, upload speeds of 3 Mbps, and a monthly usage allowance of 1024 GB, consistent with Section 54.408(b)(1) of the Commission’s rules as currently updated.

In addition, although not specifically included in Section 54.408(b)(1), the Commission should consider limiting the eligibility of high-latency (above 100 ms) services for support under this program. As the Commission recognized in increasing the weight assigned to high-latency services under the Rural Development Opportunity Fund program, such broadband services may not support interactive, real-time applications.⁹ Thus, high-latency services would not be able to

⁸ *Ibid.* The July 31, 2020 *Public Notice* specifies that:

Accordingly, absent Commission action, beginning December 1, 2020, the Lifeline minimum service standard for mobile broadband data capacity will increase to 11.75 GB per month pursuant to the calculations set out in the 2016 Order. The Lifeline minimum service standard for mobile broadband speed remains 3G mobile technology.”

But simply requiring “3G” does not specify any minimum download or upload speeds, and 3G service typically provides less than 5 Mbps download speeds. 3G can provide service at download speeds of up to 7.2 Mbps, and upload speeds of up to 2 Mbps, although actual 3G download speeds exhibited by the major carriers ranged from 4.2 Mbps to 0.9 Mbps.

<https://www.lifewire.com/how-fast-are-4g-and-3g-internet-speeds-3974470>

⁹ *Rural Digital Opportunity Fund*, 35 FCC Rcd 686 (2020) at ¶ 41.

fully support remote education services, which would defeat the purpose of this Emergency Connectivity Fund program.¹⁰

ADTRAN recognizes that for households with multiple children and/or parents working remotely from home, higher speeds may be preferable. But presumably the Commission will allow schools and libraries to select higher speed options for these remote connections when there are multiple students in a household and require greater performance characteristics than the 25/3 Mbps minimum.

Specifying minimum performance requirements is also consistent with the *American Rescue Plan Act*. Congress specified that the funding be used for the purchase of “advanced telecommunications and information services,” which is defined in the *American Rescue Plan Act*:

(1) ADVANCED TELECOMMUNICATIONS AND INFORMATION SERVICES.— The term “advanced telecommunications and information services” means advanced telecommunications and information services, as such term is used in section 254(h) of the Communications Act of 1934 (47 U.S.C. 254(h)).¹¹

The Commission’s minimum performance requirements for Lifeline-subsidized services were promulgated under Section 254, and thus reflect the same statutory basis. In addition, ADTRAN notes that the Commission also currently applies the same 25 Mbps download and 3 Mbps upload speeds as the definition of “advanced telecommunications capability” under its obligation

¹⁰ See, also, *Public Notice* at p. 5

In defining the terms “eligible equipment” and “advanced telecommunications and information services” for purposes of the rules the Commission adopts to distribute funding from the Emergency Connectivity Fund, we propose that the Commission provide funding only for equipment and services that are needed to provide the connectivity required to enable and support remote learning for students, school staff, and library patrons.

¹¹ *American Rescue Plan Act*, Section 7402(d)(1).

under Section 706 of the Telecommunications Act of 1996 to report to Congress annually on the progress towards deployment of advanced telecommunications capability.¹² The Commission thus can and should adopt these minimum performance standards for eligible services to students/households and library patrons to be funded under the Emergency Connectivity Fund program.

ADTRAN also believes that in establishing the categories of services and equipment eligible for reimbursement under the Emergency Connectivity Fund, the Commission should not limit the eligible services and equipment just to services and equipment provided to students and library patrons. While such connectivity is critical to meeting the goals of Section 7402 of the *American Rescue Plan Act*, it is also essential to ensure that schools and libraries have adequate broadband capacity and equipment so as to be able to connect with all of the students and patrons. A school's (or library's) broadband connection, engineered and deployed when students (and patrons) were present on campus, may not be sufficient to support interactive, real-time connectivity to hundreds or thousands of remote students (or patrons). Likewise, particularly when teachers are still working in the classrooms but the students are attending class remotely, the school's internal connections may also need to be upgraded to support the greater demand for internal broadband capacity.

While typically the Commission's E-Rate Program addresses broadband connectivity and internal connections for schools and libraries, these are not typical times due to the pandemic. The Emergency Connectivity Fund is intended to address these extraordinary needs, because we cannot wait for the normal E-Rate funding cycles to address this immediate need. And the

¹² 47 U.S.C. §1302; *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, FCC 21-18, released January 19, 2021, at ¶¶ 12-14.

American Rescue Plan Act provides the Commission authority to draw on this funding source for enhancing schools’ and libraries’ broadband connectivity and internal connections. Section 7402(a) of the *American Rescue Plan Act* specifies:

Not later than 60 days after the date of the enactment of this Act, the Commission shall promulgate regulations providing for the provision, from amounts made available from the Emergency Connectivity Fund, of support under paragraphs (1)(B) and (2) of section 254(h) of the Communications Act of 1934 (47 U.S.C. 254(h)) to an eligible school or library, for the purchase during a COVID–19 emergency period of eligible equipment or advanced telecommunications and information services (or both), for use by—
(1) in the case of a school, students and staff of the school at locations ***that include*** locations other than the school. (emphasis added)

While the language of the statute expands the ability of the Commission to subsidize off-campus connectivity, it does not limit the use of the Emergency Connectivity Fund just to those uses. And because such enhanced broadband connectivity between the school and the Internet and within the school may be necessary to support the added demands of remote education, subsidizing such services and equipment is certainly consistent with the intent of this legislation.

The *Public Notice* is somewhat ambiguous as to whether the Commission considers such services and equipment to be eligible for funding under this program. For example, the *Public Notice* at p. 5 states:

In defining the terms “eligible equipment” and “advanced telecommunications and information services” for purposes of the rules the Commission adopts to distribute funding from the Emergency Connectivity Fund, we propose that the Commission provide funding only for equipment and services that are needed to provide the connectivity required to enable and support remote learning for students, school staff, and library patrons.

And the *Public Notice* at p. 7 indicates:

We propose to treat a subset of the services currently available for category one E-Rate support as eligible “advanced telecommunications and information services” for purposes of the Emergency Connectivity Fund. In considering the specific category one services the Commission should make eligible for purposes of the Emergency Connectivity Fund, we propose that such services be limited to those that can be supported by and delivered

with eligible equipment as defined in the American Rescue Plan (i.e., Wi-Fi hotspots, modems, routers, devices that combine a modem and router, and connected devices). (citations omitted)

For the reasons explained above, ADTRAN urges the Commission to clarify that broadband connectivity to the school and internal connections at the school are services that may be subsidized by the Emergency Connectivity Fund.

ADTRAN also requests that the Commission make clear that for internal connections, managed Wi-Fi services would be eligible for funding. As the Commission acknowledged previously, managed Wi-Fi services may provide the most robust and efficient means of providing robust internal connections.¹³ Moreover, such managed services are likely to be faster to deploy than upgrades to hard-wired internal connections when expanded capacity is necessary, and speed is of the essence for this program.

The *Public Notice* also seeks comment on whether to allow subsidization of dark fiber or new construction:

As such, we seek comment on excluding from funding dark fiber and the construction of new networks, including the construction of self-provisioned networks. We seek comment on these proposals and the underlying assumption that the construction of new networks is not supported by the statutory text enumerating eligible equipment in section 7402 of the American Rescue Plan.¹⁴

¹³ *Modernizing the E-rate Program for Schools and Libraries*, 29 FCC Rcd 8870 (July 23, 2014) at ¶ 124:

The record demonstrates that applicants would benefit from greater flexibility to choose among managed Wi-Fi options. In particular, the variations of managed Wi-Fi services can provide substantial benefits and cost savings to many schools and libraries, particularly small districts and libraries without a dedicated technology director available to deploy and manage advanced LANs/WLANs quickly and efficiently.

¹⁴ *Public Notice* at p. 7.

ADTRAN does not believe it would be good policy or consistent with the statute to exclude the possibility of funding dark fiber or new construction. As noted above, enhancing broadband connectivity to the school is consistent with the statute, and may be necessary to effectuate the policy goal of supporting remote education. Given that, there may be some instances when the most efficient means of increasing the broadband connectivity to the school could be use of dark fiber or new construction.

When the Commission modernized the E-Rate rules to put greater focus on broadband services, it observed that:

We also promote high-speed broadband connectivity by permitting applicants to construct their own or portions of their own networks when self-construction is the most cost-effective solution. We agree with commenters that argue that allowing E-rate applicants to own all or portions of their own networks can help deliver the most cost-effective broadband services and provide financial stability for certain E-rate recipients. ... Providing support for the self-construction of high-speed broadband networks is also consistent with the Communications Act, as the Commission recently found in the *Healthcare Connect Order*:

[S]ection 254(h)(2) provides ample authority for the Commission to provide universal service support for HCP access to advanced telecommunications and information services, including by providing support to HCP-owned network facilities. Nothing in the statute requires that such support be provided only for carrier-provided services. Indeed, prohibiting support for HCP-owned infrastructure when self-construction is the most cost-effective option, would be contrary to the command in section 254(h)(2)(A) that support be “economically reasonable.”

We find this reasoning equally applicable to self-construction undertaken by schools and libraries that participate in the E-rate program, and we further find that the record now before us demonstrates that support for the self-construction of high-speed broadband networks will fulfill the mandate of section 254(h)(2)(A).¹⁵

¹⁵ *Modernizing the E-rate Program for Schools and Libraries*, 29 FCC Rcd 15538 (December 19, 2014) at ¶¶ 43-44. (citations omitted)

ADTRAN recognizes that there are concerns with regard to ensuring that such self-provisioning presents potential concerns of waste and inefficiency, particularly if there is “over-building” of already-deployed broadband networks. Thus, ADTRAN suggests the Commission adopt the same rigorous safeguards for the Emergency Connectivity Fund that it applies for the E-Rate program to ensure that self-provisioning truly would be the most efficient solution.¹⁶

Given the temporary nature of the Emergency Connectivity Fund and the need for expedition, ADTRAN expects that self-provisioning will rarely be the best and most efficient solution. However, there may be some instances where that will be the case. Moreover, preserving self-provisioning as a potential option also has the benefit in all cases of putting a measure of additional competitive pressure on current broadband service providers, thereby making it more likely that they will make more reasonable bids for offering these services. Thus, allowing the potential for self-provisioning is also consistent with the *American Rescue Plan Act* directive to the Commission to ensure that the costs of the subsidized services are “reasonable.”¹⁷

For all the reasons explained above, ADTRAN urges the Commission to adopt rules for the Emergency Connectivity Fund Consistent with these comments.

Respectfully submitted,
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Dated: April 5, 2021

¹⁶ *Ibid.* at ¶¶ 48-50.

¹⁷ *American Rescue Plan Act*, Section 7402(b).