



March 22, 2024

SUBMITTED ELECTRONICALLY VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: Ex Parte Filing

Addressing the Homework Gap Through the E-Rate Program, WC Docket No. 21-31

Dear Madam Secretary:

Pursuant to Federal Communications Commission’s *ex parte* rules, I hereby submit the following summary of our March 21, 2024 conversation with Allison Baker, Johnnay Schrieber, and Jodie Griffin of the Wireline Competition Bureau (“WCB”) to discuss considerations for the Commission’s Notice of Proposed Rulemaking regarding E-Rate support for Wi-Fi hotspots for remote learning (Proposal).¹

The following individuals from the Schools, Health & Libraries Broadband Coalition (collectively “SHLB”) participated in the call: John Windhausen, Jr., Executive Director, SHLB Coalition, Kristen Corra, Policy Counsel, SHLB Coalition, Matthew Elder, Director for Business IT Operations, Boulder Valley School District, and Frankie Elmore, CIO, Boulder Valley School District.

SHLB met with the WCB to continue discussions regarding alternative technology options outside of traditional mobile carrier hotspots that can connect students and library patrons at home.² Matthew Elder and Frankie Elmore of the Boulder Valley School District (BVSD), located in Boulder Valley, Colorado, discussed the district’s ConnectME program that uses CBRS spectrum to connect students. BVSD has about 29,000 students and roughly covers 500 square miles around Boulder, spanning five counties. Because the district covers a geographically diverse area, there is a broad range of student home connectivity needs. In 2016, the district organized a pilot program to help bridge the digital divide in a particular area within the district. It partnered with a small local wireless ISP (WISP), LiveWire Networks, Inc.;

¹ Addressing the Homework Gap Through the E-Rate Program, WC Docket No. 21-31, Notice of Proposed Rulemaking, FCC 23-91 (rel. Nov. 8, 2023).

² SHLB previously met with the WCB to discuss the East Moline School District 37’s deployment of a mesh Wi-Fi network into the surrounding community. Here, SHLB highlights Boulder Valley’s network, which utilizes CBRS spectrum, rather than Wi-Fi spectrum.

BVSD first provided space on a few school building roofs and, in exchange, LiveWire constructed a tower with fixed wireless access points that transmit wireless internet using the 3.5 GHz (CBRS) spectrum band. LiveWire then provided no-cost Internet service to students in that area that were eligible for free and reduced lunch (FRL). About 25 – 30 FRL students initially enrolled in the program, subscribing to LiveWire’s service. In April 2020, BVSD expanded the program and signed an agreement with LiveWire to provide roof space on nearly all of its school buildings (48 out of 55 buildings). In exchange, LiveWire would continue to provide no cost service to FRL student households throughout the district.³

As of today, LiveWire operates a tower on almost every building across the BVSD. Over 300 FRL students are enrolled in the program.⁴ LiveWire operates and manages the network and performs installation and other services directly at the home. The network is a point-to-point fixed wireless system, whereby the access points on each tower connect to subscriber modules – small receivers that are placed on the student’s dwelling (such as the roof or patio). Such a system allows for a broader range of coverage, since each tower has a five-mile range radius around the school.

BVSD originally purchased and issued traditional hotspots to students during the Covid-19 pandemic, but no longer funds this type of distribution. They found that hotspots couldn’t provide the bandwidth needed to support remote learning, there were unexpected overhead costs, and it was difficult to receive the device back from the borrower. They also explained that managing a large number of hotspots (approximately 445 devices) was onerous, including tracking which ones were going in and out and knowing which ones to turn on and off. At the time the district purchased hotspots, it paid about \$40-50 per device and \$20-40 per hotspot per month for the service. In contrast, BVSD estimates that the cost to manage the district’s fiber backbone infrastructure to support LiveWire’s service offerings is minimal (single digit dollars per student).

Given the success of school-enabled networks like BVSD’s, SHLB encourages the FCC to apply a broad, tech-neutral definition of “hotspots” so that alternative types of network devices (like fixed wireless access points and subscriber modules) are eligible for E-rate funding. We also encourage the Commission to ensure that the definition does not limit eligibility to devices only receiving mobile services, but that those devices using equivalent services like CBRS spectrum are also eligible.

³ LiveWire connects the household like any other normal ISP, whereby the household subscribes to its service. The district also secured a revenue sharing agreement where it leases one strand of its own dark fiber network to LiveWire and receives a portion of the profits generated by LiveWire’s sales of commercial service in return.

⁴ The district also has discounted service rates for families that do not qualify for free and reduced lunch. The lowest tier costs about \$10/month and the highest tier (200 Mbps download speed) costs about \$35/month.

Sincerely,



Kristen Corra
Policy Counsel
Schools, Health & Libraries Broadband (SHLB) Coalition
1250 Connecticut Ave. NW Suite 700
Washington, DC 20036
kcorra@shlb.org / 571-306-3757

cc via email: Allison Baker
Johnnay Schrieber
Jodie Griffin
Matthew Elder
Frankie Elmore
John Windhausen, Jr.