

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

In the Matter of)	
)	
Lifeline and Link Up Reform and Modernization)	WC Docket No. 11-42
)	
Telecommunications Carriers Eligible for Universal Service Support)	WC Docket No. 09-197
)	
Connect America Fund)	WC Docket No. 10-90
)	

COMMENTS OF THE NATIONAL DIGITAL INCLUSION ALLIANCE (NDIA)

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I. NDIA provides additional details for and joins with other digital inclusion supporters encouraging inclusion of community-based low-cost broadband solutions as Lifeline broadband providers.

In our Initial Comments (pp. 13-18) responding to paragraphs 129-141 of the Second Further Notice of Proposed Rulemaking (NPRM) on reform and modernization of the FCC’s Lifeline program, we state the Commission should take community-based solutions into account as alternative solutions in its proposed modernization of Lifeline. Community-based broadband solutions define their first purpose as broadband access and use by disadvantaged households. They provide a low-cost broadband service while often also providing local training and support.

Support of community-based broadband solutions as Lifeline providers can be found in the Comments of:

- Benton Foundation, p. 46
- California Emerging Technology Fund, p. 44
- Connected Nation, p. 15
- National Housing Conference, p. 3
- New American, p. 13
- Schools, Health, Library Broadband Coalition, p. 6

Barriers to community-based low-cost broadband solutions participating as Lifeline broadband providers:

- They are not ETCs.
- They may not be as experienced in regulatory compliance as current Lifeline broadband providers and thus require training and an assigned FCC support staff.

If community-based low-cost broadband solutions were designated as eligible Lifeline broadband providers, changes to their existing services might include the following:

- Expand backhaul capacity.
- Expand geographically (to additional buildings or neighborhoods), and/or to new demographic populations (for example, from students to parents).
- Purchase routers and modems for use in the home by the Lifeline subscribers.
- Some of the non-profit solutions are currently set up as open networks, not requiring individual sign on. Presumably, they would need to change their sign in process to ensure the service is being used by eligible households.
- Restructure budgets so that fundraising dollars previously used for low-cost service can be used for training and support.

Technology For All-Wireless (TFA-Wireless): A specific example of how a community-based organization's eligibility as a Lifeline provider could expand their low-cost solution.

The current TFA-Wireless platform is a research network in collaboration with Rice University.¹ The research has been funded by the National Science Foundation and also provides a community resource of wireless Internet service. It is available for free for up to 1.5 mbs and serves the Southeast Houston neighborhood around the TFA office which includes a portion of the Milby High School attendance zone. The current quality of service is limited by the research aims of the current network, but TFA is planning a second layer of service with a higher throughput of 5-10MB. This second layer of service is currently dependent upon fundraising efforts. It could be implemented more quickly if eligible households in the neighborhood could use their Lifeline Program subsidy for TFA-Wireless.

Milby High School in Southeast Houston serves 2012 students, 80.9% of which are economically disadvantaged. 94.6% are Hispanic and 18.7 percent are English Language learners. There are 1392 at-risk students or approximately 69% of the student body. In addition to Milby High School, there are also four elementary schools and one junior high school in the current footprint of our TFA-Wireless platform.

To serve the full attendance zone of Milby High School would require an additional 25 antennas and additional bandwidth injected into the network. Based upon the demographic data, to serve the entire Milby High School attendance zone, TFA would

¹ TFA-Wireless (Last visited September 29, 2015.) <http://www.techforall.org/programs/about-tfa-wireless/>

need to increase the footprint of their network from its current coverage of about 20,000 residents (4243 households) to about 59,500 residents (12,812 households). Of these households, 26.6% or 3411 live below the poverty level.² This is twice the poverty level of the state of Texas as a whole. Per capita income in 2015 is estimated at \$12,685. Education levels of adults in the proposed area are also low with 33% having less than a 9th grade education and 49.1% (33% + 16.1%) with no high school diploma. Only 5.6% of the adults in the proposed service area have a Bachelor's Degree and even less (1.9%) have a graduate or professional degree.³

Houston Independent School District (HISD), of which Milby High School is part of, has initiated the PowerUP program. PowerUP is a program that provides one laptop for each Milby High School student . Teaching methodologies are being changed to meet 21st century skill requirements and HISD is converting to digital-age instruction and communication in the new PowerUP program. Milby students have adequate bandwidth at school, but many do not have access to the Internet at home or after school. Expanding TFA-Wireless could change that.

Technology For All has created the “*TFA-PowerUP+*” program as a convergence of opportunities and collaboration to improve student educational success by increasing parent, student, and teacher technical skills and positive interactions with each other through online tools for education and engagement.

Technology For All has been working in conjunction with HISD's Milby High School to help students take full advantage of the PowerUP program to succeed and further their education. TFA will fill the homework gap and enhance the success of the PowerUP program by:

- Providing students with additional skills, tools and bandwidth (TFA-Wireless) to achieve their educational goals.
- Training parents to have the skills they need to monitor and encourage their students' educational progress.
- Helping teachers gain the basic computer skills necessary to more effectively facilitate instruction, manage curriculum, and engage their digitally proficient students and parents.

If TFA were to become a provider of Lifeline broadband, it could direct its fundraising efforts to covering the training and support needs of the disadvantaged community members it serves.

Clarification to our Initial Comments regarding Connecting For Good

² Texas Education Agency.

³ U.S. Census Bureau through the tool DecisionInsite.com.

The Connecting for Good cost per user estimate in the NDIA Comments (p. 14) is only based upon the cost of the backhaul. Connecting for Good also incurs deployment cost of approximately \$200 per user. Connecting for Good’s model currently is to fundraise to cover the deployment cost.⁴ Setting up individual sign-on will increase maintenance cost. Connecting for Good is confident it can provide 25MB down and 2MB up for less than the \$9.25 per household subsidy. This low cost per subscriber can be attributed to economies of scale and to CFG's mission “to enable organizations and individuals to use technology to connect with one another in order to have a positive impact on society and the environment”.⁵

Red Hook WIFI: A Nonprofit Wifi Network

Red Hook WIFI was not mentioned in NDIA’s Initial Comments. NDIA adds them here as an example of a large scale community-led, free WIFI program. They operate in Red Hook, Brooklyn, where broadband adoption rates are lower than the city average. Their vision is to close the digital divide, generate economic opportunity, and facilitate access to essential services and improve quality of life for residents and businesses in the neighborhood. Red Hook WIFI is completely free to users, and installed, maintained and promoted by participants of the Red Hook Initiative's Digital Stewards technology and career training program, young adult residents of the Red Hook Houses, a NYCHA development.⁶ In 2016 Red Hook WIFI will expand to provide service within the public housing development, where the Lifeline program could greatly improve Red Hook WIFI’s ability to provide service to low income users and create a necessary sustainability mechanism for the network. Red Hook WIFI is confident it can provide 25MB down and 2MB up for less than the \$9.25 per household subsidy.

II. NDIA joins with other digital inclusion supporters in opposing the imposition of monthly data caps on Lifeline broadband users

Initial Comments of the Benton Foundation (p. 23), Consumers Union (p. 4), the Rural Broadband Policy Group (p. 16), the Open Technology Initiative (p. 7), the Multicultural Media, Telecom and Internet Council and National Urban League (p.10), the California Emerging Technology Fund (p. 16) and others oppose the imposition of monthly caps on data provided to low income households through Lifeline broadband services, or advocate that (per CETF's Comments at p. 16)) “... *if this Commission decides that data caps are required for all non-Lifeline broadband programs, any data caps for the broadband Lifeline program should be generous, for example, the average data used by an urban broadband subscriber in that same region.*”

⁴ See Pemberton Park Project Update for a deployment budget and current fundraising status. (Last visited September 29, 2015.) <http://www.connectingforgood.org/pemberton-park-project-update/>

⁵ About Us, Connecting for Good. (Last visited September 29, 2015.) <http://www.connectingforgood.org/about/>

⁶ See Red Hook WIFI website for more information. www.redhookwifi.org.

NDIA agrees with the Comments of these organizations with regard to monthly data caps associated with Lifeline broadband services. We believe that monthly data allotments of the type currently in effect for Lifeline data plans and other low-cost 3G/4G mobile accounts, e.g. 1 GB, 2 GB or even 6 GB per month, are inappropriate for home broadband access, and will defeat the Commission's goal of enabling Lifeline-eligible households to engage in a variety of meaningful uses of broadband in such areas as education, employment, healthcare and community safety – especially where such allotments must be shared among multiple household members.

Casey Sorensen of PCs for People, an NDIA affiliate based in Minneapolis, writes the following:⁷

6GB of data may be adequate for mobile use, but that is not how our clients are using their devices. These are home devices and in many cases, a family of eight uses it as their only Internet connection. There are multiple scenarios where our clients could use the 6 GB of data before doing any homework, job searching or web browsing. If a family has not used their computer for months while waiting for our Sprint LTE service to be available, Windows updates could easily use 6 GB of data. Windows computers also automatically download Windows 10, which is another 6GB. In a worst case scenario a user with two computers could deplete 4 months' worth of data on Windows updates and upgrades. Our service is supposed to even the playing field for kids and their schoolwork. A child on dial-up (throttled internet) is not on an even playing field with his higher income peer on broadband.

III. To the extent that the Commission concludes that it must allow monthly data caps as a feature of Lifeline broadband service from traditional telephone and Internet providers, the Commission should give even greater consideration to expanding Lifeline reimbursement eligibility to unconventional providers including municipal broadband networks and nonprofit community networks.

Community providers like those described in NDIA's Initial Comments, driven by “bottom lines” of public service or nonprofit mission rather than profit, and focused on the specific needs of low income consumers, are often able to provide superior levels of network access – including unlimited data – to those consumers at much lower cost than commercial providers.

Albemarle Schools LTE network, Connecting For Good wifi mesh, TFA-Wireless, Chattanooga EPB NetBridge (community-based networks described in our Initial Comments as potential Lifeline providers) plus Red Hook WIFI currently provide

⁷ Email to NDIA Director Angela Siefer, September 28, 2015.

unlimited data to their users, and would expect to do so for Lifeline-subsidized households.