



Broadband Implementation Committee

Berryville/Clarke County Government Center, 2nd Floor
101 Chalmers Court, Berryville, Virginia 22611
Main Meeting Room

Wednesday, April 21, 2021 2:00 pm

1. Call to Order
2. Minutes:
 - January 13, 2021
3. Town of Berryville and Town of Boyce Update
4. Shentel Update
5. American Rescue Plan Funding Update
6. Clarke County/Comcast VATI 2019 Project Recap
7. Commonwealth Connect Update
8. Next Meeting:
 - July 14, 2021, 2:00 pm, main meeting room
9. Adjournment

Broadband Implementation Committee
January 13, 2021 Regular Meeting 2:00 pm

At a regular meeting of the Broadband Implementation Committee held on Wednesday, January 13, 2021, at 2:00 pm in the Main Meeting Room, Berryville Clarke County Government Center, 101 Chalmers Court, 2nd Floor, Berryville, Virginia.

Members Present: Bev McKay, Doug Lawrence, Buster Dunning, Dr. William Houck

Members Absent: Doug Krum

Staff Present: Chris Boies, Felicia Hart, Tiffany Kemp, Brandon Stidham

Others Present: Mary Ivie

1. Call to Order

At 2:00 pm, Doug Lawrence called the meeting to order and turned the meeting over to County Administrator, Chris Boies.

2. Organizational Meeting

Select 2021 Chair

Chris Boies opened the floor for nominations for Chair of Broadband Implementation Committee for 2021.

Bev McKay, seconded by Dr. William Houck, moved to appoint Doug Lawrence for Broadband Implementation Committee Chair for 2021. The motion carried by the following voice vote:

Buster Dunning	-	Aye
William Houck	-	Aye
Doug Kruhm	-	Absent
Doug Lawrence	-	Aye
Beverly McKay	-	Aye

Set Meeting Dates, Time, and Location

Date	Time	Location
Wednesday, January 13, 2021	2:00 pm	Main Meeting Room
Wednesday, April 14, 2021	2:00 pm	Main Meeting Room
Wednesday, July 14, 2021	2:00 pm	Main Meeting Room
Wednesday, October 13, 2021	2:00 pm	Main Meeting Room

Wednesday, January 12, 2022	2:00 pm	Main Meeting Room
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Bev McKay, seconded by Dr. William Houck, moved to adopt the meeting schedule as presented. The motion carried by the following voice vote:

Buster Dunning	-	Aye
William Houck	-	Aye
Doug Kruhm	-	Absent
Doug Lawrence	-	Aye
Beverly McKay	-	Aye

Doug Lawrence suggested that an evening meeting at times may be needed.

3. Approval of Minutes

- Doug Lawrence page 4: change “Chair Lawrence stated that Shentel is the parent company of GLO Fiber, and it is twice as fast as Comcast.” To “Chair Lawrence stated that Shentel is the parent company of GLO Fiber.”

Dr. William Houck, seconded by Bev McKay, moved to approve the October 21, 2020, minutes as amended. The motion carried by the following vote:

Buster Dunning	-	Aye
William Houck	-	Aye
Doug Kruhm	-	Absent
Doug Lawrence	-	Aye
Beverly McKay	-	Aye

4. Rappahannock Electric Cooperative Update

Doug Lawrence highlights include:

- Spoke with the representative from Rappahannock Electric Cooperative (REC) today; he was not allowed to discuss the FCC auction until January 29, 2021.
- Updated the Committee that REC had to pull out of the FCC auction because there was a class-action suit filed.
- Expressed that his view was that if they would have been able to participate in the FCC auction and received enough money, then one (1) of the requirements was to run fiber to every meter in their service area within seven (7) years.
- Buster Dunning asked; Doug Lawrence stated that the lines for the proposed project would have run through conduit.

5. Shentel Update

Doug Lawrence Updates:

- Had a phone conversation with Shentel Representative, Dan Meenan, who called into the October meeting. He indicated that we should call back in two (2) to three (3) weeks because the engineers are still studying cost, etc.

6. All Points Broadband

See Item 9. Community Meetings.

7. State and Surrounding Localities Updates

Doug Lawrence indicated:

- In the future, discuss the possibility of partnering with surrounding localities because Clarke may have towers to help Frederick, Warren, and Jefferson, and vice versa, giving the opportunity to come together regionally to examine projects and possible grants.
- Conversated with Frederick County, Patrick Barker, expressed:
 - They applied two (2) years ago for a VATI Grant that they did not get.
 - Last year they made a Request for Proposal (RFP) and had no response.
 - Used some CARES Act funding to get a third-party to hook-up WiFi at some of the fire halls for school students.
 - Working on a \$20 million upgrade project to mostly the Fire & EMS/Law Enforcement equipment that would possibly help with broadband infrastructure.

Dr. William Houck expressed that he liked the idea of joining with surrounding localities so that it does become a bigger project and is more worthwhile for these businesses to come in and provide the service.

8. Clarke County/Comcast VATI 2019 Project Recap

Doug Lawrence Updates:

- Talked to one customer who took advantage of the service in White Post. The full bundle was roughly \$200 a month and they are happy with the service.
- Would like to know how many took advantage of the service. Brandon Stidham expressed that the only residents who may have trouble with using the service were the ones who are in the newer subdivision Greenway Vista who were under Winchester Wireless because they went in roughly a year before the Comcast project and wired the homes with roof-top antennas; those residents may still be in a contract with Winchester Wireless.
- Believe Comcast ran fiber up Russell Road and Cather Road within the last year; will have discussions with Comcast to get more information.

9. Community Meetings

Doug Lawrence Updates:

- At the November 2020 Legislative Priorities Meeting, Delegate Dave LaRock mentioned that the best way to get broadband is for neighbors to band together and complain. If they get a spokesperson and enough commitments, projects will happen.
- Need to come up with a strategy to make it more open to private-sector competition to get business to come into the County and complete projects.
- Businesses are busy right now due to COVID-19, so one function for the local government may be to get neighborhood groups together to ensure that it will be a worthwhile project for these businesses. Once the groups are formed then those individual communities can push the projects. Gave the example of Wadesville Road; if those neighbors join together and the County helps them connect with the right personnel at these businesses, they can figure out options that will work best for that area.
- In some areas, they may be able to get two (2) businesses to band together to provide the best services to underserved areas; for example have Comcast run fiber to a certain point and then set up a tower for Winchester Wireless to reach the homes.
- Another idea to think about and explore using VDOT right-of-ways to run the fiber then use beam technology from the road to the homes. Bev McKay stated that Visual Link was a promoter of the beam technology but is no longer in business. Doug Lawrence confirmed that Visual Link was bought out by All Points Broadband who services some of the County. Buster Dunning expressed that All Points Broadband, roughly a year ago, did not seem interested in coming South of Berryville.
- Buster Dunning added that Virginia Air Networks also known as LiveStream has a plug-and-play device that is wireless; it is a one-time fee of \$399, then you choose the package, most expensive one is \$100 a month. Brandon Stidham stated that he believes this is a 4G LTE product, where they use cellular capacity.
- Brandon Stidham expressed that Winchester Wireless has a similar service; it works for those residents who have no line-of-sight, adding that with these types of products, there is a data cap. Further explained that these products go to a tower, but they are cellular, so a clear line-of-sight is not needed.

Brandon Stidham expressed that before the Community Meetings begin, it may be a good idea to get the representative from Comcast to come to a meeting to discuss if they would realistically do a project if a neighborhood group went in together to get a project done. Adding that just this week, he had a conversation with a resident who is close to where Comcast is already available in the area; they stated that Comcast quoted them a high cost just to run the fiber to their home, the residents said he would pay the cost, but then Comcast never responded. Fear that if there are these Community Meetings and those neighborhood groups go to Comcast, then Comcast will not be able to fulfill the service; feel that there should be a commitment from a Comcast representative before those groups start asking.

Chris Boies stated that his experience with Comcast is that they have not been very responsive. Explaining that last year Clarke offered to do all of the work on a grant that would have paid for infrastructure to be installed and we had customers who were

willing to connect once available, and Comcast never responded. Believe that Comcast is so busy that our projects are not large enough for them to consider.

Bev McKay conveyed that possibly the best starting point for Clarke is Shentel since they have all of the wireless beam frequencies and they have both wired and wireless options.

Felicia Hart explained that Shentel Glo Fiber is currently doing a media outreach on Facebook, having citizens put in information to see if their service is close to the area. If you are not in close proximity to the service they will put you on a waiting list.

Chris Boies suggested that staff and this Committee should compile all of the information and options for citizens. Agree with Bev McKay that Shentel may be the group that will help Clarke the most. Need to form a relationship with Shentel and discuss areas to target for the VATI grant. Doug Lawrence confirmed that he would call the Shentel representative the first week of February; Felicia Hart stated that she would also find the best contact for Shentel.

Doug Lawrence explained that Virginia received \$238 million from the Rural Digital Opportunity Fund (RDOF) auction, spread among 16 winning bidders, will research that information.

Doug Lawrence reiterated that Clarke needs to work on lining up projects and partners to apply for the Virginia Telecommunications Initiative (VATI) grant. The part that hurts Clarke County is the density because we are on the lower end of the spectrum.

Health aspects:

Dr. William Houck stated that he went online and the answers for all world health organizations, all agree that there is very minimal risk looking specifically at 5G causing cancer.

10. Next Meeting

April 14, 2021, 2:00 pm, main meeting room, hope to have an update on surrounding localities and information from Shentel.

Brandon Stidham explained that if committee members get questions about internet from constituents to bring up the WISPs, like All-Points, Wave2Net, Virginia Air, etc., because they are all in competition with each other and most likely have new products to keep up with one another. Many people do not understand the difference between satellite and WISPs.

11. Adjournment

At 2: 44 pm, Chair Lawrence adjourned the meeting.

Minutes Recorded by Tiffany R. Kemp and Transcribed by Brianna R. Taylor

2021 General Assembly Broadband Recap

Budget

- \$50m for FY22 round of the Virginia Telecommunication Initiative (VATI)
- New VATI pilot in which public broadband authorities may apply directly for Virginia Telecommunications Initiative funds without investment from the private sector. Awards shall not exceed 10 percent of total available VATI funds in FY22.

Mapping (Budget Language)

- Provides the Department of Housing and Community Development (DHCD) \$424,000 to create a statewide broadband availability map with service territory data submitted by Virginia broadband providers. The published map will be anonymized, showing locations served and unserved by broadband without reference to any specific provider. DHCD will also establish a process to petition map inaccuracies.

Utility Leverage (HB2304/SB1413)

- Makes permanent the pilot program under investor-owned electric utilities may provide broadband capacity to unserved areas of the Commonwealth. The bill provides that investor-owned electric utilities may recover costs of and revenue generated from providing broadband capacity that serves as an electric grid transformation project in areas unserved by broadband, as defined in the bill. The bill also consolidates the State Corporation Commission petition approval process into one hearing and streamlines the process by which an area is determined eligible. Allows municipal broadband authorities to participate.

Digital Equity (budget language)

- Directs the Department of Social Services, in coordination with Chief Broadband Advisor, to design a program that provides a fixed reimbursement, which shall not exceed \$15 monthly, for broadband service costs for select households currently participating in the Supplemental Nutrition Assistance Program. The department shall report on the program design and structure, administrative cost estimates, program guidelines, and other relevant information related to implementing the program to the Chairs of the House Appropriations and Senate Finance and Appropriations Committees by November 1, 2021.

Broadband Programs and Schools (SB1225)

- Authorizes school boards to appropriate funds for the purposes of promoting, facilitating, and encouraging the expansion and operation of broadband services for educational purposes. The bill authorizes school boards to partner with private broadband service providers to promote, implement, and subsidize broadband for educational purposes to

the households of students who would qualify for (i) a child nutrition program or (ii) any other program recognized or adopted by the local school board as a measuring standard to identify at-risk students.



Bringing Broadband to Rural America

**Virginia Commonwealth Connect Coalition
March 23, 2021**



For more information, contact:
Alex Marré, PhD o (443) 890-6247 o Alex.Marre@rich.frb.org

The views expressed are the presenter's and not necessarily those of the Federal Reserve Bank of Richmond or the Federal Reserve System.

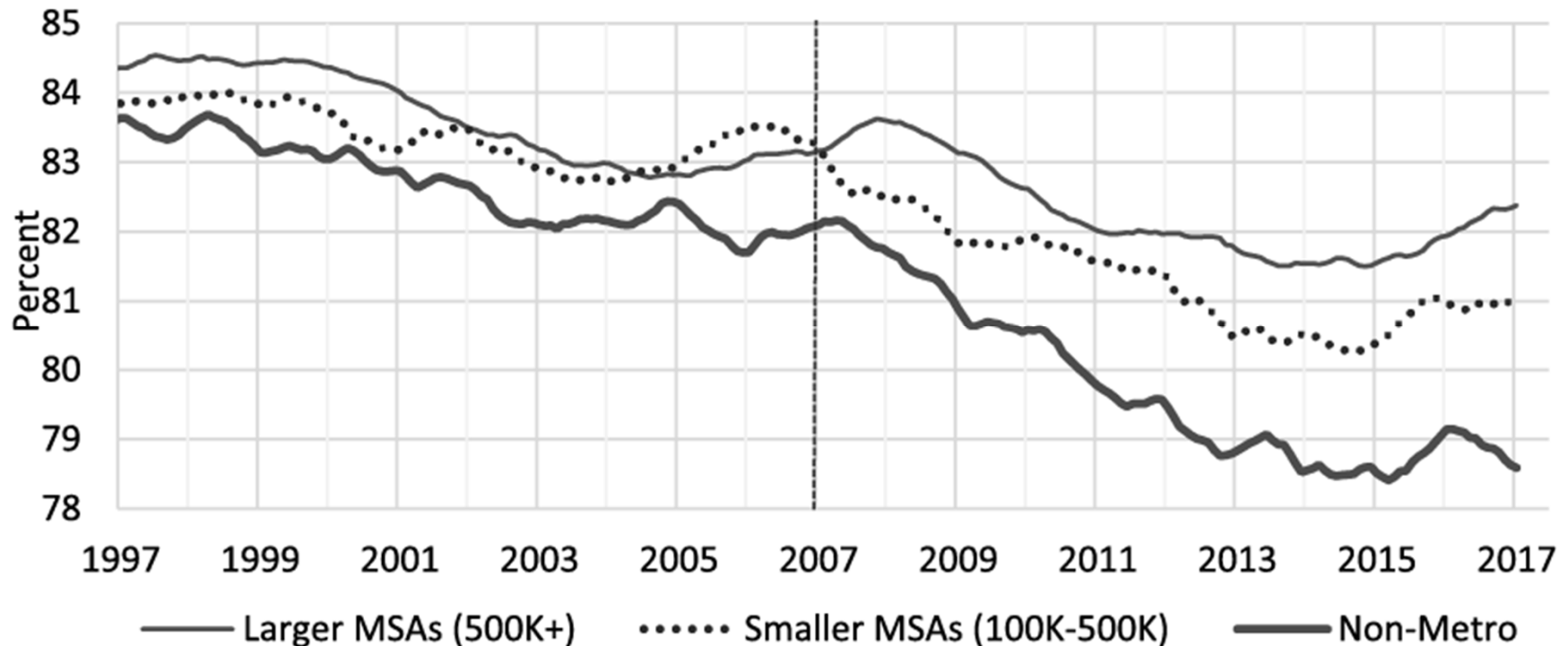
COVID-19 and the digital divide

- Lack of high-speed internet restricts productivity for remote work
 - Lack of broadband service is a non-starter for attracting remote workers
- Rural health relies on access to broadband
 - 77% of rural counties are a health professional shortage area
- Rural education is facing enormous challenges
 - 85% of school districts are using remote learning, but 5.4 million children lack access to digital resources at home

RURAL ECONOMIC PERFORMANCE

Rural & urban economies are diverging

Prime-Age Labor Force Participation Rates by Metropolitan Status



Source: Weingarden, Alison (2017). "Labor Market Outcomes in Metropolitan and Non-Metropolitan Areas: Signs of Growing Disparities," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, September 25, 2017, <https://doi.org/10.17016/2380-7172.2063>.

Rural & urban economies are diverging

Indicator	Rural	Urban
Population Increase, 2018-19	0.02%	0.6
Employment Increase, 2018-19	0.6%	1.4%
Poverty rate, 2018	16.1%	12.6%

Source: USDA-Economic Research Service, *Rural America at a Glance: 2020 Edition*

Large broadband multiplier effects

- A Purdue University study: \$3 to \$4 ROI on broadband expansion in rural Indiana
 - Consumer savings
 - Telemedicine – reduced physician time, travel cost, improved health knowledge, reduced use of emergency rooms
 - Education – increase in teacher productivity assuming improved student engagement
 - Business investment and economic development – entrepreneurship and startups, higher incomes and lower unemployment rates
 - Farm income – increase in farm revenue

Other estimated economic impacts

- A study commissioned by the U.S. Chamber of Commerce estimated that access to digital tools for rural small businesses would increase GDP by \$41 billion and would create 316,605 jobs
- A USDA study estimated \$18-\$23 billion in economic benefits per year to agriculture given ubiquitous broadband

Most statistical models find at least some positive impacts

- **Employment growth:** changing from 0 to 1-3 internet providers was associated with a 6-percentage point increase in employment growth between 1999-2006 (Kolko, 2012)
- **Business attraction:** access to broadband associated with at least a 5% increase in the probability of a firm locating in a rural area (Kim & Orazem, 2016)
- **Home values:** In remote rural counties, a 10% increase in broadband coverage is associated with an increase in the median house value by \$661 (Deller & Whitacre, 2019)

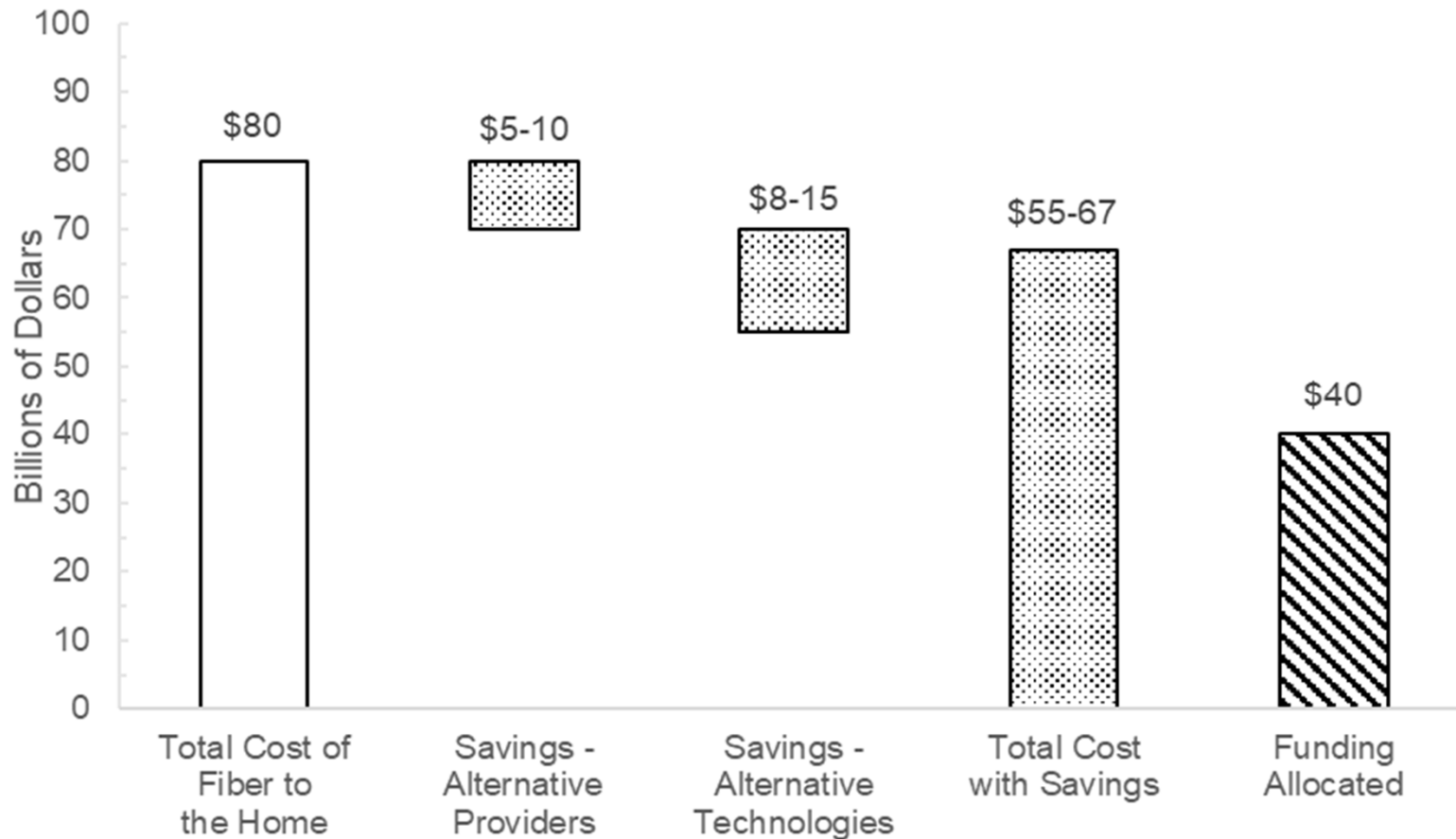
The Profitability Challenge

Rural broadband is expensive

- Rural areas are a perfect storm for poor coverage, providing a costly business case for providers
 - Low population density
 - Greatest distance to existing infrastructure
 - Low adoption rates due to lower income, higher share of the elderly and disabled, and lower levels of average educational attainment
- Poor coverage maps leave some rural areas ineligible for subsidies

Problem Size & Resources Available

The estimated cost-funding chasm



Notes: Funding allocated, and funding disbursed consist of the Rural Digital Opportunity Fund, the Alternative Connect America fund, USDA's ReConnect and Rural Utilities Service programs and an estimate of total state funding allocated from the National Telecommunication and Information Administration's [State Fact Sheets](#).

Bringing Broadband to Rural America

Putting the \$40 billion to work

- When potential providers are available:
 - Use fixed wireless or satellite for a fraction of the cost of fiber, but with potential quality issues
 - Use electrical cooperatives or electrical utilities to install fiber, taking advantage of existing backbone, poles
- When potential providers are not available:
 - Use public-private partnerships to create projects that are eligible for state and/or federal funding. What are effective risk management models?
 - Disruptive technologies, especially low-earth orbit satellites, could play a role in last mile residential service

Where Are We Headed?

A time of experimentation

- Increasing broadband adoption through a \$50/month subsidy
- Potential for new technologies
- Improved mapping and RDOF's next auction could open up more funding areas
- Minimum broadband speed (25Mbps/3Mbps) could be increased to 100Mbps/100Mbps
- Potential for more state control over federal dollars

Thank You!

Emergency Broadband Benefit

Emergency Broadband Benefit: Overview

Overview

- Broadband affordability effort issued in the Consolidated Appropriations Act of 2021
- \$3.2 billion in support for broadband services and certain devices to help low-income households stay connected during the pandemic.
 - \$50/month discount eligible households
 - \$75/month discount for tribal households
 - Up to a one-time \$100 reimbursement for an eligible device purchased through a participating provider
- Providers make available the discount for service and are reimbursed by the FCC
- Program will be in place until no funding remains, or 6 months after the COVID-19 emergency period is over, whichever is first

Emergency Broadband Benefit: Household Eligibility

Those households qualify for the EBB Program if at least one member of the household:

1. Qualifies for the Lifeline Program
2. Has been approved for free and reduced price lunch or breakfast
3. Has experienced a substantial loss of income through unemployment
4. Has received a Federal Pell Grant
5. Meets eligibility criteria for a participating ISP's existing low-income or COVID-19 program

Emergency Broadband Benefit: Household Participation

Eligible households will enroll through participating broadband providers or directly with the Universal Service Administrative Company (USAC).

Direct online registration for households has not yet opened.

- www.fcc.gov/broadbandbenefit

A [fact sheet](#) is also available for the program.

The program is expected to begin delivering benefits in April.

Emergency Broadband Benefit: Internet Service Provider Eligibility

ISPs must be an eligible telecommunications carrier (ETC).

ETCs could include cable providers, wireless Internet service providers, or non-traditional broadband providers like community-owned networks, electric cooperatives, or municipal governments.

ISPs wishing to register as an ETC must do so quickly.

- www.fcc.gov/emergency-broadband-benefit-program

Correction

ISPs not registered at ETC are eligible to participate in the program, a broadband provider that is not designated as an eligible telecommunications carrier may seek approval from the Wireline Competition Bureau to participate in the Emergency Broadband Benefit Program as a participating provider. More information on this process can be found in the “Provider FCC Approval” Tab at <https://www.fcc.gov/emergency-broadband-benefit-program>

Questions?

Email: commonwealthconnect@governor.virginia.gov