Alabama Broadband Accessibility Fund
2020 Round One Grant Application for

BLACK BELT COMMUNITY BROADBAND PROJECT

Hayneville Telephone Company, Inc.
P O Box 175
208 East Tuskeena Street
Hayneville, AL 36040

(334) 548-2101

2020 Round One Grant Application

Applicant Information

Project Name: Black Belt Community Broadband Project

Legal Name of Entity: Hayneville Telephone Company, Inc.

Mailing Address: P O Box 175, Hayneville, AL 36040

Name and Title of CEO: Evelyn P. Causey, President

Name and Title of Contact: Evelyn P. Causey, President

Phone Number and Email of Contact: (334) 371-3008 ecausey@htcnet.net

Autonomous System Number (ASN): 33623

List Internet Exchange Membership (if any) MGMix Montgomery

PeeringDB entries (www.peeringdb.com)

Hayneville Telephone Company, Inc. - History & Project Introduction

Hayneville Telephone Company, Inc. (HTC) is applying for a Broadband Accessibility Grant under the Alabama Department of Economic and Community Affairs (ADECA) to serve the Black Belt Community.

HTC is an Equal Opportunity Employer with headquarters located at 208 East Tuskeena Street, Hayneville, in Lowndes County, Alabama. Please see included state and area maps for location information. HTC operates as an independent local exchange carrier (ILEC) and holds CLEC (Competitive Local Exchange Carrier) authority for the state of Alabama. HTC is a family owned and operated telephone company since 1946 and is a wholly owned subsidiary of Hayneville Holding Company, Inc. Starting with 60 customers in 1946, Mr. & Mrs. Howard S. Powell, III extended services to the nearby towns of Lowndesboro, Mosses, and Calhoun. They were able to serve the residents of Lowndes County with quality services and were among the first telcos to offer custom calling features and ADSL internet service in the 1990s, as well as IPTV in 2008.

Lowndes County is the fifth smallest county in Alabama, encompassing only 716 square miles. The county population as of 2017 was 10,362 consisting of 4,309 households. The estimated median household income is $29,785 which is 51% lower than the national median income of $61,372. The Lowndes County population consists of 74% minority residents. Furthermore, 30.2% of residents live below the national poverty level. (source: datausa.io/profile/geo/Lowndes-county-al/#about)

Lowndes County played a major role in the Civil rights era during the 1950's. The area known as the "Black Belt" was a key location to the civil rights movements in Montgomery and Birmingham. The County has suffered from lack of educational resources, as seen in the 2017 census report. Lowndes County has 76% of its population attaining High School or equivalent diplomas, and only 13.7% of its population attaining bachelors degrees.

The Lowndes County seat, Hayneville, comprises 2 square miles. It is located approximately twenty miles southwest of Montgomery and approximately 150 miles north from the Gulf of Mexico.

HTC serves a large portion of the county with approximately 400 route miles of plant. Their current subscribers are served by three exchange offices and 4 remote facilities, and 14 remote field cabinets. Currently HTC offers bundle services including unlimited local, long distance and features plus high-speed internet and IPTV video services. HTC currently offers transport, wholesale, and retail business and residential services on a redundant network.

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SECTION A - PROJECT DESCRIPTION

Section A.1 Project Service Area

HTC proposes under the ADECA Broadband Accessibility Fund 2020 Grant Application: the Black Belt Community Broadband Project to serve the Black Belt Community in rural Lowndes County which will bring speeds up to 1 Gig to one of the most rural parts of Alabama. The infrastructure improvements included in the Black Belt Broadband Project Application will significantly improve the internet speeds and quality of video services currently available to these rural residents and businesses. The Black Belt Broadband Project will construct 8.3 total route miles of fiber optic infrastructure to deliver these services to 264 eligible locations within the proposed service area. Currently the maximum wireline service available broadband speed is between 6 and 10 Meg using bonded pair copper delivery in some locations. This antiquated delivery method is not capable of providing higher speed internet services to the Black Belt residents. With the completion of the Black Belt project, businesses and residences will be offered symmetrical internet services to support upload speeds up to 500 Meg. Additional upload speeds will be available with the addition of equipment. This is especially valuable for small businesses using cloud services and uploading large files. With technologically advanced facilities, HTC's local presence and the ability to offer multiple advanced services on one monthly invoice, HTC will be able to meet the needs of these rural customers. A breakdown of customers located in the PFSA follows:

Number of Households to be Served	258
Number of Businesses / Industries to be served	4
Number of Community Anchors to be served	2

The Black Belt Community Anchors are the Hicks Hill / Black Belt Volunteer Fire Department and the Hicks Hill Community Center. The project area is rural in nature and not included in any incorporated area / municipality. According to the Alabama Broadband Accessibility Act definition of rural, the Black Belt Community meets the requirements of rural classification. The 2017 Census data reported Lowndes County had a population of 10,362 with recent

estimates on July 1, 2018 of 9,974, of which the Black Belt project area represents only a small percentage of that population; thereby making the entire county and the Black Belt community qualify as rural, being less than the 25,000 population maximum.

Section A.2 Technology Discussion

For this service area, Active Ethernet (Active-E) technology will be used to provide FTTH services to underserved areas. Network equipment used in this project was designed as a "future-proof" solution to support advances of end user technology without the need to upgrade the entire network infrastructure. This technology is capable of reliably delivering triple play services (Internet, voice and TV) from designated fiber runs to multiple subscribers. Active-E provides a direct connection to each customer, simplifying management and customer connectivity. Active E is supported by Adtran's Total Access 5000 (TA 5000) and supports HTC's 10 GB fiber distribution ring. Customer provisioning and traffic management is easily accomplished over a dedicated fiber and standard Active-E connections that terminate into Adtran ONTs at the customer premise. The Adtran Total Access 5000 capacity easily scales to provide Gigabit service for subscribers. The TA 5000 allows for future growth and additional bandwidth by supporting 10Gbps GPON architectures as customer demands increase.

The TA 5000 is an environmentally hardened modular platform that can be deployed in a central office or at a remote location. Its modular architecture is scalable and protects carrier investments by preventing equipment obsolescence. Migrating to next-generation access interfaces, protocols, and services is accomplished by simply replacing a module in the TA 5000. This platform supports flexible traffic management; Ethernet flow mapping, prioritization, tagging; and versatile management options which are required to respond to the demand for premium services. The TA 5000 product line is widely deployed and meets all of the core standards required to provide telecom and datacom services.

This network is easily upgradeable and well maintained consistent with HTC's existing network. Equipment and software upgrades for new features and patches can easily be deployed during our maintenance window (12am – 6am) to minimize the impact to HTC broadband customers.

Section A.3 Service Offerings Information

CenturyLink and Troy Cable each provide 10 GB uplinks to HTC that serve as backbone connections to the Internet network. Bandwidth accessibility per home is up to 1 Gbps. Any businesses and CAI's that locate to the area will have the accessibility to speeds up to 10 Gbps with upgrade or installation of additional equipment. New equipment at each site has allowed for future-proof scalability of up to 4,000 Gbps by adding electronics (40 channels at 100 Gbps per channel).

Hayneville Telephone Company provides a variety of service plans to its customers and does not enforce data caps. The two tables below list residential fiber bandwidth and pricing tiers for Internet, phone & Internet, and triple-play services.

Bandwidth	**Internet**	**Phone & Internet**	**TV & Internet**		
			Basic	Standard	Expanded & HD
Up to 50mb	$50.95	$90.95	$89.95	$162.95	$170.95
Up to 100mb	$79.95	$119.95	$123.95	$191.95	$199.95
Up to 300mb	$99.95	$139.00	$143.95	$211.95	$219.95
Up to 500mb	$124.95	$164.95	$168.95	$236.95	$244.95

This table contains triple-play services – phone, TV, and Internet.

Bandwidth	**Basic**	**Standard**	**Expanded or HD**
Up to 50mb	$149.95	$182.95	$190.95
Up to 100mb	$143.95	$211.95	$219.95
Up to 300mb	$163.95	$231.95	$239.95
Up to 500mb	$188.95	$256.95	$264.95

Section A.4 Technical Evaluation

Preliminary Technical Evaluation – Hayneville Blackbelt Service Area

Hayneville Telephone Company project has the following technical capabilities and metrics:

Proposed System Type:	Fiber to the Home (FTTH)
Proposed System Topology:	Active Ethernet
Proposed Network Equipment:	Adtran with TA-352 or TA-400 series ONT
Proposed Broadband Service Speeds:	Up to 1Gb/s and beyond (future)
Proposed Miles of Fiber:	8.3
Proposed Customers Passed:	Homes 258, Businesses 4, Anchors 2, Total 264
Project Cost Estimate:	$587,730.00
Project Schedule Start:	April 13, 2020
Project Schedule End:	April 13, 2022

Hayneville Telephone Company (HTC) will utilize an Active Ethernet (Active E) Fiber to the Home (FTTH) network architecture to provide 25 Mbps downstream & 3 Mbps upstream broadband to the Hayneville Blackbelt service area. The proposed FTTH network design in this service area calls for a total of 8.3 miles of fiber.

The equipment strategy for the HTC Blackbelt Service Area FTTH project is to leverage existing fiber to deploy an Active E FTTH solution using the Adtran Total Access 5000 platform. The Adtran platform can deliver video, data and voice over the Active E platform from a designated fiber to multiple subscribers. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location, providing the lowest practical latency for a residential user. Facilities supporting fiber infrastructure exist and none will be constructed or leased. HTC will add 258 households, 4 businesses and 2 community anchors to the Hayneville Blackbelt Service Area.

HTC's Internet peering connections and routers are monitored by a NOC and upstream providers, CenturyLink and Troy Cable, to ensure that adequate bandwidth and IP addresses are available to our broadband customers. Currently, two routers connect to Internet backbones. The routers are co-located in Atlanta, GA and Nashville, TN. Two optical waves are leased to connect the routers to our network in Dothan and Montgomery, AL. HTC offers broadband, transport, redundancy, diverse routing, and business continuity for strategic community operations and wholesale services. HTC has 10 Gbps of existing peering bandwidth, with the ability to scale it higher as bandwidth usage grows. This network facilitates excellent response

times across the network with minimal latency. Latency from HTC's network's edge to our Internet peering locations is typically well below 20ms. HTC is able to provide an overall service level across the entire network that is equivalent to Internet users in Urban and Suburban areas to its existing subscribers and to all customers in the proposed service area. Each location supporting core and FTTH equipment will be constructed with carrier grade DC power plant and batteries with at least 8 hours of backup in the event of a long-term power outage. If the commercial power were to be affected for an even longer period, HTC can provide longer-term temporary power via fixed or portable generators as necessary.

Project Budget

Following is the project budget from Schedule B-1

Budget Item	Total Cost	Grant	Match
Engineering/Design	$53,950.00	$18,882.50	$35,067.50
Materials	$45,392.00	$15,887.20	$29,504.80
Labor	$2,000.00	$700.00	$1,300.00
Construction/Installation	$486,388.00	$170,235.80	$316,152.20
Other (please specify)			
Total	$587,730.00	$205,705.50	$382,024.50

Project Schedule & Timeline

The project schedule is planned to be completed well within the 2-year timeframe. The engineering has been completed for the project and it has been bid out to qualified contractors. The winning contractor will order materials along with HTC. Construction will commence on the mainline followed by customer drops. After marketing and scheduling of customer turn-ups, customers will be cutover to the new FTTH network and higher-speed broadband services.

PLEASE SEE ATTACHMENT A4 FOR COMPLETE ENGINEERING TIMELINE, PROJECT BUDGET DATA, ADECA BROADBAND MAP, AND PROFESSIONAL ENGINEER CERTIFICATIONS. KMZ FORMATS ARE ELECTRONICALLY SUBMITTED WITH THIS APPLICATION.

Hayneville Telephone Company History and Legacy

Hayneville Telephone Company has an interesting and long history of serving rural Alabama with communication services. In 1946 the home of Howard and Jessie Powell burned to the ground. The real estate in Hayneville, Alabama was limited and the only house for sale was the one with the local telephone company in the living room. Howard ran a successful Sinclair Gas Franchise and wasn't really interested in the telephone business, but his young wife loved the house, so as any good southern wife would do, she purchased the home without her husband's permission or approval. So, in the blink of an eye Howard Powell owned a telephone company with 60 subscribers. He and his young wife moved in and raised their three children as well as their new business, all under the same roof. Jessie served as the operator and Howard managed the outside plant facilities. The temptation to listen in most often got the best of "Miss Jess", so to deter her Howard borrowed funds from USDA's Rural Electrification Administration, now known as Rural Utilities Services, to purchase their first automated switch. Although "Miss Jess" was no longer in the "know", their services continued to improve and expand through hard work and advancing technology. The company began to flourish. Their children also invested their lives into the company, all three serving in various leadership positions over the years. Currently the third and fourth generations are involved in the company and continue the legacy of service started over 73 years ago. Over the years the company proved to be one of the most forward thinking telcos in Alabama. Being one of the first to offer high speed internet and IPTV (internet protocol cable services) in rural Lowndes County speaks to their innovation and dedication to the industry. Currently, Hayneville Telco is led by both Powell legacies and industry professionals taking it into the 21st century.

Personnel

Evelyn Causey currently serves as President / COO of Hayneville Telco. Evelyn has 25 years experience in the telecom industry. She officially joined HTC during the onset of the internet

service offering, but as the grandchild of Howard and Jessie she has been part of the business all of her life. Evelyn is very active in the industry and serves as Vice President of the Telecommunications Association of the Southeast. She is currently the Chair of the Alabama 911 Board (Governor appointed) and serves on the Butler County Commission on Economic Development (Vice Chair) as well as the Lowndes County Economic Development Commission. Evelyn was most recently asked to serve on the Lurleen B. Wallace Foundation Board which she has proudly served for the past year. With a proven track record of telecom leadership, Evelyn has led the efforts to keep Hayneville Telephone Company innovative and competitive in an ever changing industry.

Mason Halacker, General Manager and Director of Business Development for HTC has over 30 years' experience in Management with small business and Fortune 500 companies. He worked for 15 years in the Utilities Industry with 10 years specifically in Telecommunications. His expertise includes Human Resources ranging from a local plant level to the Corporate level. He also leads the company's business development efforts where he garnered 100% of the Hyundai Auto Manufacturing Tier 2 and 3 support businesses in our footprint. Under his leadership, we currently serve approximately 75 % of all industry, government, medical, and educational institution's communications needs.

Howard Powell, IV, Chief Technology Officer, has over 24 years' experience in Network Engineering and Management. He has led the company in the development of our Sonnet platform and then its evolution to Ethernet. Today he helped develop the company's Fiber based DWDM (Dense Wavelength Division Multiplexing) backbone. He designed our network's redundancy and diversity to help us maintain very high Industry service levels. Recently Howard helped the company with its expansion into the Montgomery, Mobile, Selma and Atlanta markets where we co-lo with National and International Carriers. He led the RFP process of a new DWDM platform with 4 Terabyte capability which now serves its first ever 100 G solution to a national corporation customer. He continues his grandparents' legacy of service.

Cory Causey is currently the Comptroller for Hayneville Telephone Company since June of 2013. His finance degree has served him well managing the day to day financial operations including accounts payables, inventory, investments and asset management. Cory's expertise in organizational development and restructuring has helped the company maintain its' competitiveness in a changing and highly competitive market. Cory currently serves as a board member for Greenville Rotary Club, President of the Butler County Auburn Club and a board member of Butler County Children's Advocacy Center (Safe Harbor).

Keith Bowen, Network Administrator, brings over 15 years' experience in Network Administration. He is responsible for the programing, configuration, maintenance and overall performance of our modern Meta Switch for Voice Services, Adtran, Calix and other data equipment as well as our IPTV equipment four our TV Head End. He maintains system software including upgrades, and actively monitors the network performance. He also troubleshoots more complex issues and deploys solution accordingly. He provides input in the evaluation of new applications and equipment.

With a cumulative 86 years experience and 73 years corporate business experience serving Lowndes County, Hayneville Telephone Company has been a stable and reliable service provider for the state's most rural markets. With a proven track record of reliability and advanced technology deployment HTC continues the legacy of service and commitment to community into the 21st century. They have the skills and resources necessary to complete this project within the two year grant deadline.

Section A.6 Pole Attachment Discussion

Hayneville Telephone Company does not currently have any entities to whom we are charging for pole attachment fees nor do we anticipate having any during the construction of this project.

Section A.7 Vendor and Subcontractor Discussion

Hayneville Telephone Company plans to utilize internal human resources and material resources as much as feasibly possible. Should we need the assistance of outside contractors to complete certain aspects of the project construction, we will use standard RFP processes giving small, minority owned and women owned businesses capable of providing needed goods or services due and appropriate consideration.

Section A.8 Middle Mile Projections if Applicable

There will be no Middle Mile construction in this project. The broadband FTTH infrastructure will only service underserved subscribers.

Section A.9 Community Support Location Discussion

The entire Black Belt community qualifies as rural under the ADECA definitions. Furthermore, there are no wireless or fixed wireless solutions in the proposed service area that provide 25 Mgps download / 3 Mgps upload speeds. The citizens of this rural area are in great need of higher speed internet. The lack of high speed internet has made citizens unable to work from home due to low bandwidths. From an educational standpoint, students need access to higher speeds to do online assignments and research. The internet has immense potential to improve the quality of education, which is one of the pillars of sustainable development. Access to the internet is fundamental to achieving this vision for the future, opening doorways to a wealth of information, knowledge and education resources. According to Black Belt area surveys, telecommuting and distance education were the two largest needs. Respondents noted that they are interested in speeds from 50 Meg to 1 Gig as soon as access to the network becomes available. Please see the sample of surveys included.

Community support letters from the following have been included for your review and consideration:

- Lowndes County Economic Development Commission – Thomas Ellis, President
- Lowndes County Commission – Carnell McAlpine, Chairman
- Hicks Hill / Black Belt Volunteer Fire Department – Mrs. Dorothy Maull, President
- U. S. Representative Second District - Congresswoman Martha Roby
- Town of Hayneville – David Daniel, Mayor

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SECTION B – APPLICATION BUDGET

Section B – Application Budget

Total Project Cost	$587,730.00
65% of Total Project Cost (minimum match)	$382,024.50
35% of Total Project Cost (grant maximum)	$205,705.50
Total Grant Amount Requested (not to exceed $1.5 million)	**$205,705.50**

Section B.1 - Itemized eligible project expenses.

Budget Item	**Total Cost**	**Grant**	**Match**
Engineering/Design	$53,950.00	$18,882.50	$35,067.50
Materials	$45,392.00	$15,887.20	$29,504.80
Labor	$2,000.00	$700.00	$1,300.00
Construction/Installation	$486,388.00	$170,235.80	$316,152.20
Other (please specify)			
Total	$587,730.00	$205,705.50	$382,024.50

Section B.2 – Financial Discussion

Hayneville Telephone Company has reviewed it business model for the Black Belt Community project and believes it to be financially sustainable. HTC is already receiving revenues from existing subscribers in the project area and after the fiber to the home technology is placed into service, HTC expects to increase its average revenue per user (ARPU) by offering higher broadband speeds to its existing customer base and to reach additional new customers with its superior network. In addition, while the project is under construction, HTC will supplement the grant funding with its own cash from existing operations. In addition, should it be necessary, HTC can also draw on its existing line of credit. HTC plans to execute on most of the project deliverables by using its own staff and where needed, HTC will seek to receive responses from subcontractors on an RFP for additional services in order to ensure the project is completed on target and as outlined in the grant application. Hayneville Telephone Company is externally audited annually. HTC is happy to provide copies of financial reports as needed for additional support upon request.

As an incumbent local exchange carrier, Hayneville Telephone Company (HTC) has been serving the Lowndesboro, Hayneville and Gordonsville exchanges of Lowndes County since 1946 and is the recipient of federal high cost universal service funding. High cost support allows eligible telecommunications carriers serving customers in rural areas to recover some of their costs of providing service in order to ensure that those consumers have access to modern communications capable of providing voice and broadband services at rates reasonably comparable to those in urban areas.

HTC continues to receive legacy high cost funding in the form of Connect America Fund – Broadband Loop Support (CAF-BLS). HTC is required to use its CAF-BLS 5-year funding projection of $1,915,193 to build 25 Mbps downstream and 3 Mbps upstream to 325 locations within its service area within the next five years beginning in January 2020. The receipt of grant funding will allow Hayneville Telephone Company to reach more customers with 25/3 broadband speeds. The project areas under consideration are areas currently served by HTC but that lack 25/3

broadband service due to the lack of last mile fiber infrastructure. Accordingly, the grant will allow HTC to do both of the following:

1. Extend broadband connectivity to unserved areas within its service area above and beyond the required 325 locations that must be served using CAF-BLS funding.
2. Ensure areas that are being supported by federal funding that currently receive speeds less than 25/3 will in fact receive speeds of no less than 25/3.

As shown, HTC's request for state grant funding for the enhancement of broadband service to a portion of Lowndes County meets the requirements and promotes the objectives of the Alabama Broadband Accessibility Act. The proposed grant area in Lowndes County clearly meets the requirement of an unserved area under the Act. HTC's service area is funded by CAF-BLS support and those areas proposed to be upgraded using grant funding are also funded by CAF-BLS support. However, funding provided by CAF-BLS is estimated to be about $350,000 annually with a portion of this support being applied to this project of $587,730, which proposes to upgrade existing customers with state-of-the-art Fiber to the Home technology and will allow for speeds of at least 25/3 by 2021. The grant will reach 264 locations passed and will help expedite the delivery of higher broadband speeds in contrast to the timeline set forth by federal funding.

C. Other Program Priorities

Please see Attachment C for further responses.

Does this project seek to leverage grant funds through private investment?	YES ☒	NO ☐	If yes, include an explanation and documentation in a file titled Attachment C
Will this project be an extension of existing infrastructure?	YES ☒	NO ☐	If yes, include an explanation and documentation in a file titled Attachment C
Does this project serve locations with demonstrated community support?	YES ☒	NO ☐	If yes, include an explanation and documentation in a file titled Attachment C
Will this project serve the highest number of unserved homes, businesses, and community anchor points for the least cost?	YES ☒	NO ☐	If yes, include an explanation and documentation in a file titled Attachment C
Does this project emphasize the highest broadband speeds?	YES ☒	NO ☐	If yes, include an explanation and documentation in a file titled Attachment C
Will this project provide material broadband enhancements to hospitals located in rural areas?	YES ☐	NO ☒	If yes, include an explanation and documentation in a file titled Attachment C
Will this project support local libraries in this state for the purpose of assisting the libraries in offering digital literacy training pursuant to state library and archive guidelines?	YES ☐	NO ☒	If yes, include an explanation and documentation in a file titled Attachment C
Is the applicant a certified Minority Business Enterprise under the Alabama Minority Business Enterprise Program? Or is it certified under another Disadvantaged Business Enterprise Program?	YES ☐	NO ☒	If yes, include an explanation and documentation in a file titled Attachment C

D. Certifications

1. The applicant certifies that it is a non-governmental entity.

2. The applicant certifies all new customers served as a result of this project will have access to an internet connection that provides a capacity for transmission at an average speed per customer of at least 25 Mbps download and at least 3 Mbps upload.

3. The applicant certifies that all new customers served as a result of this project are not located within the boundaries of any incorporated city or town having a population in excess of 25,000 inhabitants, according to the last federal census.

4. The applicant certifies that it has the technical and managerial capabilities to complete the project within two years of the effective date of the grant agreement.

5. The applicant certifies that the area to be served does not have at least one provider of terrestrial broadband service that is either: (1) offering a connection to the Internet meeting the minimum service threshold; or (2) is required, under the terms of the Federal Universal Service Fund or other federal or state grant, to provide a connection to the Internet at speeds meeting the minimum service threshold by March 28, 2023.

Certification	
I the undersigned am authorized to obligate my entity and enter into agreements for my organization. I understand that the above certifications do not guarantee funding and a grant agreement will be executed prior to project funds being expended. I further understand that if the above statements cannot be verified, no grant funds will be awarded under this program. Finally, to the best of my knowledge the above certifications are true and correct.	
Signature of Applicant: 	Date:12/30/2019
Title of Applicant: President / COO	

For more information regarding the Alabama Broadband Accessibility Fund, please send questions to Maureen Neighbors at broadband.fund@adeca.alabama.gov, or call (334) 242-5292 between the hours of 8:00 a.m. to 4:00 p.m., Monday through Friday.

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ATTACHMENT C

Section C – Other Program Priorities Responses

Question 1 Yes Response - Grant Funds Leveraged Through Private Investment

HTC will seek to leverage ADECA grant funding in the amount of $205,705.50, 35% of the project total of $587,730. The matching grant funding of $382,024.50 will be invested by Hayneville Telephone Company through cash on hand and an operating line of credit. HTC has the ability to service the debt through existing operations not including any growth that would be generated from the grant funded facilities. The Black Belt community has been in the HTC service area since the Alabama Public Service Commission certificated this area in 1960's. This project will improve the services and create new opportunities for HTC to grow their customers base. This will only improve the financial model to continue service this area into the future.

Question 2 Yes Response - Extension of Existing Infrastructure

Currently HTC serves the majority of Lowndes County including the rural towns and communities of Hayneville, Lowndesboro, Gordonsville, Hope Hull, Letohatchee, Calhoun, Benton and Black Belt with 400 route miles of existing infrastructure. Leveraging the existing fiber to the remote network, this project will improve the services available to the Black Belt community by providing fiber to the home services. The extension of the fiber network will add 8.3 miles of fiber optic cable to the HTC network allowing them to reach more rural residences, businesses and anchor institutes.

Question 3 Yes Response - Community Support

The community has more than embraced the need for this fiber infrastructure evidenced by the letters of support included in this application. Although rural in nature, the level of interest has been overwhelming. Please see the letters of support for more information. The entire Black Belt community qualifies as rural under the ADECA definitions. Furthermore, there are no wireless or fixed wireless solutions in the proposed service area that provide 25 Mgps download / 3 Mgps upload speeds. The citizens of this rural area are in great need of higher speed internet. The lack of high speed internet has made citizens unable to work from home due to low bandwidths. From an educational standpoint, students need access to higher speeds to do online assignments and research. The internet has immense potential to improve the quality of education, which is one of the pillars of sustainable development. Access to the internet is fundamental to achieving this vision for the future, opening doorways to a wealth of information, knowledge and education resources. According to Black Belt area surveys, telecommuting and distance education were the two largest needs. Respondents noted that they are interested in speeds from 50 Meg to 1 Gig as soon as access to the network becomes available. Please see the sample of surveys included as well as the community letters of support.

Question 4 Yes Response - Highest number of Unserved for the Lease Cost

Using existing middle mile fiber infrastructure, HTC can capitalize on the last mile investment at the least cost. The Black Belt project was engineered to take full advantage of existing infrastructure and be cost effective in providing the highest bandwidth available. The Black Belt project builds fiber facilities from the node to each service location. All 264 residents, businesses and anchor institutions will be served with fiber to the home facilities constructed in the most cost effective method possible. This solution will also future proof the needs of the community for years to come providing infinite bandwidth capabilities with the addition of more equipment. Being a small company, HTC understands the importance of using resources wisely and will make sure to provide an excellent value for each dollar spent.

Question 5 Yes Response - Emphasize the Highest Broadband Speeds

Using FTTH technology the HTC fiber network will provide future proof technology to enable speeds of infinite bandwidth with the additional of electronic equipment. All CAIs within the proposed service area will have access up to 1 Gig bandwidth with infinite bandwidth available with the additional equipment.

Question 8 No Response - Certified Minority Business Enterprise

Hayneville Telephone Company is majority woman owned and operated. They are in the process of being certified by the Alabama Minority Business Enterprise Program. In light of this, the NO box is indicated, but HTC is poised to change that to a YES for future opportunities.

Attachment A-4

Preliminary Technical Evaluation – Hayneville Blackbelt Service Area

Hayneville Telephone Company project has the following technical capabilities and metrics:

Proposed System Type:	Fiber to the Home (FTTH)
Proposed System Topology:	Gigabit Passive Optical Network (GPON)
Proposed Network Equipment:	Adtran with TA-352 or TA-400 series ONT
Proposed Broadband Service Speeds:	Up to 1Gb/s and beyond (future)
Proposed Miles of Fiber:	8.3
Proposed Customers Passed:	Homes 262, Anchor 2, Total 264
Project Cost Estimate:	$587,730.00
Project Schedule Start:	April 13, 2020
Project Schedule End:	April 13, 2022

Hayneville Telephone Company (HTC) will utilize a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) network architecture to provide 25 Mbps downstream & 3 Mbps upstream broadband to the Hayneville Blackbelt service area. The proposed FTTH network design in this service area calls for a total of 8.3 miles of fiber.

The equipment strategy for the HTC East Service Area FTTH project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran Total Access 5000 platform. The Adtran platform can deliver video, data and voice over Gigabit Passive Optical Networks (GPON) from a single fiber to multiple subscribers. Customers served by a GPON connection will have a 25mbps/3Mbps GPON connection from the Optical Network Terminal (ONT) at their home through a 1:32 optical splitter that runs over fiber cable (12 to 144 strand fiber cable depending on passing quantity) to the serving remote Optical Line Terminal (OLT). Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location, providing the lowest practical latency for a residential user. Facilities supporting fiber infrastructure exist and none will be constructed or leased. HTC will add 262 households and 2 anchor to the Hayneville Blackbelt Service Area.

HTC's Internet peering connections and routers are monitored by a NOC and upstream providers, CenturyLink and Troy Cable, to ensure that adequate bandwidth and IP addresses are available to our broadband customers. Currently, two routers connect to Internet backbones. The routers are co-located in Atlanta, GA and Dallas, TX. Two optical waves are leased to connect the routers to our network in Dothan and Montgomery, AL. Troy Cable offers broadband, transport, redundancy, diverse routing, and business continuity for strategic community operations and wholesale services. HTC has 10 Gbps of existing peering bandwidth, with the ability to scale it higher as bandwidth usage grows. This network facilitates excellent response times across the network with minimal latency. Latency from HTC's network's edge to

our Internet peering locations is typically well below 20ms. HTC is able to provide an overall service level across the entire network that is equivalent to Internet users in Urban and Suburban areas to its existing subscribers and to all customers in the proposed service area.

Each FTTH OLT will be constructed with carrier grade DC power plants and batteries with at least 8 hours of backup in the event of a long-term power outage. If the commercial power were to be affected for an even longer period, HTC can provide longer-term temporary power via fixed or portable generators as necessary.

Project Budget

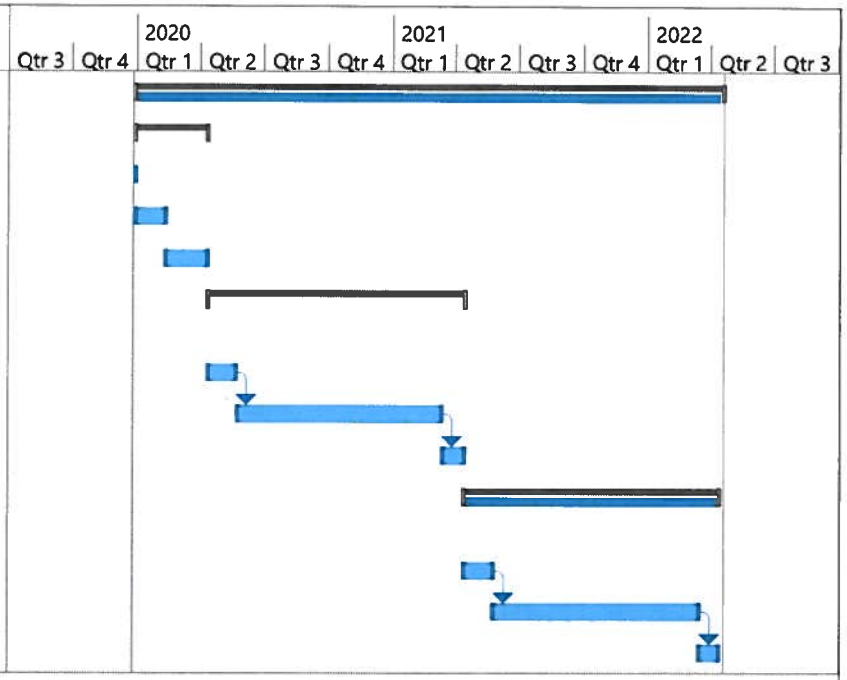
Following is the project budget from Schedule B-1:

Budget Item	Total Cost	Grant	Match
Engineering/Design	$53,950.00	$18,882.50	$35,067.50
Materials	$45,392.00	$15,887.20	$29,504.80
Labor	$2,000.00	$700.00	$1,300.00
Construction/Installation	$486,388.00	$170,235.80	$316,152.20
Other (please specify)			
Total	$587,730.00	$205,705.50	$382,024.50

Project Schedule & Timeline

The project schedule is planned to be completed well within the 2-year timeframe. The engineering has been completed for the project and it has been bid out to qualified contractors. The winning contractor will order materials along with HTC Construction will commence on the mainline followed by customer drops. After marketing and scheduling of customer turn-ups, customers will be cutover to the new FTTH network and higher-speed broadband services. The attached timeline and project schedule shows the order of activities for the project:

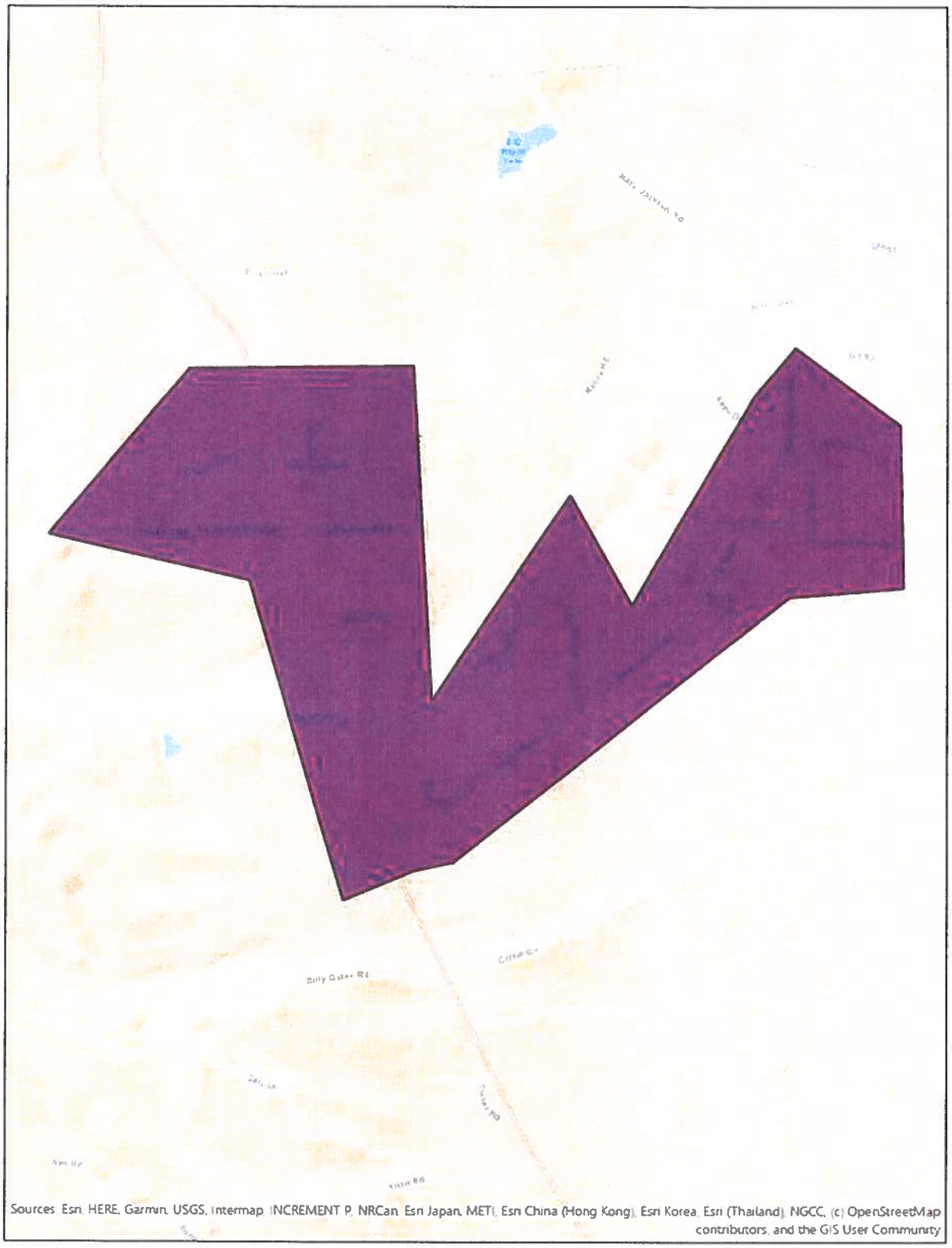
ID	Task Mode	Task Name	Duration	Start
1		**Hayneville Telephone Company**	**602 days**	**Mon 12/30/19**
2		**Application**	**75 days**	**Mon 12/30/19**
3		Applicaton Submitted	1 day	Mon 12/30/19
4		Objection Period	31 days	Tue 12/31/19
5		Review Period	44 days	Wed 2/12/20
6		**Blackbelt Service Area 2020-2021**	**263 days**	**Mon 4/13/20**
7		Engineering	30 days	Mon 4/13/20
8		Construction	210 days	Mon 5/25/20
9		Turn Up & Test	23 days	Mon 3/15/21
10		**Blackbelt Service Area 2021-2022**	**261 days**	**Wed 4/14/21**
11		Engineering	30 days	Wed 4/14/21
12		Construction	211 days	Wed 5/26/21
13		Turn Up & Test	20 days	Thu 3/17/22



Project: Hayneville Blackbelt
Date: Fri 12/27/19

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

ADECA Broadband Map – Hayneville Blackbelt



Professional Engineer Certification

I the undersigned, certify that the proposed FTTH project will work as described in the application and can deliver 25 Mbps downstream 3 Mbps upstream, at the service levels outlined, to all premises for which coverage is proposed. Moreover, the system, as designed, can meet the proposed build-out timeline, milestones, and construction schedule within the cost specified in the application and can be completed within two years.

12/20/19

(Date)

(Certifying Engineer's Signature)

Howard John Gorter

Name (Printed)

VP – Engineering & CTO

Title

Palmetto Engineering & Consulting

Company

Registration Number: 37916-E

State of Registration: AL

Expiration Date: 12/31/2021

Hayneville Telephone Company 2020-2022 Timeline

2019 - 2020 Grant Application:

- Application submitted December 30, 2019 12pm.
- Objection period December 31 to February 11 (30 business days).
- Review Period (60 calendar days) Saturday April 11.
- Project start Monday, April 13 2020 - Wednesday, April 13 2022

2020-2021 Buildout Timeline:

Complete 50% of OSP Construction and Electronic Equipment installation for Blackbelt service area, approximately 4.15 route miles and 132 drops. Add new subscribers and upgrade existing subscribers.

Reasonableness / Data Points:

Begin Engineering and Design upon positive award of ADECA Grant for Blackbelt service area. Start permitting in preparation to begin OSP cable construction. Prepare Plans & Specifications to Bid OSP Construction and Electronic Equipment contracts to assure competitive pricing. Award contracts and begin installation/construction.

2021-2022 Buildout Timeline:

Complete remaining 50% of OSP Construction and Electronic Equipment installation for Blackbelt service area, approximately 4.15 route miles and 132 drops.

2022 Buildout Support for Reasonableness / Data Points:

Complete Engineering and Design for Blackbelt service area. Add new subscribers and upgrade existing subscribers. Finalize and closeout OSP Construction and Electronic Equipment contracts.

Hayneville Telephone Company

Black Belt Community Broadband Grant - Attachment A.9

Community Support Letters to Follow

Lowndes County Commission

Post Office Box 65
Hayneville, Alabama 36040
Phone: 334-548-2331
FAX: 334-548-5101

Commissioners
Carnell McAlpine - Chairman
Dickson Farrior - Vice Chairman
Joseph Barganier
Joshua Simmons
Robert Harris

Jacquelyn J. Thomas
Administrator
Kimberly West
Asst. Administrator
Geraldine Ingram
Purchasing Clerk
David Butts
Engineer

December 6, 2019

Kenneth Boswell, Director
Alabama Department of Economic and Community Affairs
401 Adams Avenue, Suite 560
Montgomery, Alabama 36104-4325

RE: HAYNEVILLE TELEPHONE COMPANY
2020 ADECA BROADBAND GRANT

Dear Mr. Boswell:

Hayneville Telephone Company, Inc. is applying for the 2020 Alabama Broadband Accessibility Grant to extend their fiber optic network into rural areas in Lowndes County. The Lowndes County Commission works closely with Hayneville Telephone Company as a partner in economic development in Lowndes County. We share their values of innovation and commitment to the community.

As a fiber-based internet provider, Hayneville Telephone Company has committed to providing an advanced high-capacity fiber network solution to our community in an ever-increasing bandwidth intensive world. Having been in business as a telecommunications carrier for over 70 years Hayneville Telephone Company has a proven track of providing reliable broadband services to not only residential, but to area governmental, commercial, industrial, medical and educational entities.

We offer our full support to Hayneville Telephone Company and their endeavor to secure this much needed funding. I respectfully request that you give them due and appropriate consideration. If you have any questions or if I may be of assistance, please do not hesitate to call me at 334-548-2331.

Sincerely,

Carnell McAlpine

Carnell McAlpine
Chairman
Lowndes County Commission

LOWNDES COUNTY
ECONOMIC DEVELOPMENT COMMISSION

334-371-8400
Ntellis2@gmail.com
P.O. Box 127
Hayneville, AL 36040

December 5, 2019

Mr. Kenneth Boswell
Director, ADECA
401 Adams Avenue
Montgomery AL 36104

RE: AL Broadband Accessibility Application- Hayneville

Dear Mr. Boswell:
The Lowndes County Economic Commission fully supports the broadband application submitted by the Hayneville Telephone Company and Camilla Communications. The broadband project will enhance our economic development objective to provide fiber infrastructure to rural residents who are currently unserved.
It's estimated that this service will provide 600-residents, farms, city facilities and businesses with up-to-date internet speed.
This grant also offers the opportunity to continue our efforts to make a Lowndes County more competitive rural community.

Thomas Ellis
Chairman
Lowndes County Economic Commission

Hicks Hill /Black Belt Volunteer Department, Inc.
5649 County Road 17** Hayneville, AL 36040
334-220-9694/563-9884

December 23, 2019

Kenneth Boswell, Director
Alabama Department of Economic and Community Affairs
401 Adams Avenue, Suite 560
Montgomery, Alabama 36104-4325

RE: HAYNEVILLE TELEPHONE COMPANY
2020 ADECA BROADBAND GRANT

Dear Mr. Boswell:

Hayneville Telephone Company, Inc. is applying for the 2020 Alabama Broadband Accessibility Grant to extend their fiber optic network into rural areas in Lowndes County. As a community member bringing fire protection services to the Hicks Hill & Black Belt community, we understand the value and impact of this project to our fire department as well as community residents. High speed internet can open many doors for our fire department such as online training and continued education.

As a fiber-based internet provider, Hayneville Telephone Company has committed to providing an advanced high-capacity fiber network solution to our community in an ever-increasing bandwidth intensive world. Having been in business as a telecommunications carrier for over 70 years Hayneville Telephone Company has a proven track of providing reliable broadband services to not only residential, but to area governmental, commercial, industrial, medical and educational entities.

We offer our full support to Hayneville Telephone Company and their endeavor to secure this much needed funding. I respectfully request that you give them due and appropriate consideration. If you have any questions or if I may be of assistance, please do not hesitate to call me at 334-563-9884.

Sincerely,

Dorothy L. Maull

Dorothy L. Maull
President

Town of Hayneville

241 West Tuskeena Street
P.O. Box 365
Hayneville, Alabama 36040
Phone (334) 548-2128
Fax (334) 548-2129

December 27, 2019

Kenneth Boswell, Director
Alabama Department of Economic and Community Affairs
401 Adams Avenue, Suite 560
Montgomery, Alabama 36104-4325

RE: HAYNEVILLE TELEPHONE COMPANY
2020 ADECA BROADBAND GRANT

Dear Mr. Boswell:

Hayneville Telephone Company, Inc. is applying for the 2020 Alabama Broadband Accessibility Grant to extend their fiber optic network into rural areas in Lowndes County. As a rural community, we understand the value and impact of this project to our town as well as community residents. High speed internet can open many doors for our community to promote and support education; new economic opportunities; and assist in providing better city services for our citizens.

As a fiber-based internet provider, Hayneville Telephone Company has committed to providing an advanced high-capacity fiber network solution to our community in an ever-increasing bandwidth intensive world. Having been in business as a telecommunications carrier for over 70 years Hayneville Telephone Company has a proven track of providing reliable broadband services to not only residential, but to area governmental, commercial, industrial, medical and educational entities.

We offer our full support to Hayneville Telephone Company and their endeavor to secure this much needed funding. I respectfully request that you give them due and appropriate consideration. If you have any questions or if I may be of assistance, please do not hesitate to call me at 334-548-2331.

Sincerely,

David Daniels
Mayor

BUTLER COUNTY COMMISSION FOR ECONOMIC DEVELOPMENT

December 9, 2019

Mr. Kenneth Boswell
Director, ADECA
401 Adams Avenue, Ste. 580
Montgomery, Alabama 36104

Re: Alabama Broadband Accessibility Application – Butler County and Lowndes County

Dear Mr. Boswell,

The Butler County Commission for Economic Development (BCCED) fully supports the broadband application submitted by Camellia Communications and the Hayneville Telephone Company. The broadband project will enhance our economic development efforts and provide fiber infrastructure to rural residents that are currently unserved. Camellia Communications and the Hayneville Telephone Company are active participants and supporters of economic development activities in both Butler and Lowndes County.

It is estimated that this service would provide up-to-date internet speed to almost 1200 homes, small businesses, farms, economic development and community centers and libraries in rural southcentral Alabama. This will increase our ability in both counties to assist existing industries continue to expand and provide a business-friendly environment for industry and small businesses considering new business development opportunities.

Thank you for your time and consideration.

Josh Pierce

Josh Pierce, Chairman
Butler County Commission for Economic Development

P. O. Box 758 • Greenville, AL 36037
750 Greenville Bypass • Building 1, Suite A
(334) 371-8400 • Fax (334) 371-8402

MARTHA ROBY
2ND DISTRICT, ALABAMA

CANNON HOUSE OFFICE BUILDING
ROOM 442
WASHINGTON, DC
PHONE: (202) 225-2901

COMMITTEE:
APPROPRIATIONS

Congress of the United States

House of Representatives

Washington, DC 20515–0102

December 9, 2019

Mr. Kenneth W. Boswell
Director, Alabama Department of Economic and Community Affairs
401 Adams Avenue
Montgomery, AL 36104

RE: Hayneville Telephone & Hayneville Fiber Transport, Inc. d/b/a Camellia Communications
Alabama Broadband Accessibility Fund 2020 Grant Project

Dear Mr. Boswell:

I have been contacted by representatives of Hayneville Telephone and Hayneville Fiber Transport, Inc. d/b/a Camellia Communications in Butler County, Alabama, located within my congressional district, in reference to the applications they are submitting to your agency for the Alabama Broadband Accessibility Fund 2020 Grant Program.

It is my understanding that the program would assist in funding last mile fiber infrastructure deployment offered connectivity to the following rural, currently unserved, project locations within Butler and Lowndes counties: Blackbelt, Ebeneezer Road, Hayneville-East, Hayneville-West, Poor House Road and Sherling Lake. In total, the proposed fiber infrastructure will serve approximately 810 households, and small businesses; as well as an economic development center, community library and a campground in these service areas. Likewise, the proposed projects, totaling $2,150,850.00, will provide broadband services up to 1 Gig speeds meeting the demands of rural Butler and Lowndes counties for any application needed such as telecommuting, distant learning, email, retail commerce, typical banking and financial needs, over the top video, gaming and social media.

Please know that I am glad to support the referenced application. Please note my interest and grant all due and appropriate consideration. You may reply to my district office in Montgomery at the following address or fax number.

Congressman Martha Roby
401 Adams Avenue, Ste. 160
Montgomery, AL 36104
(334) 262-8758 Fax

If you need to reach a member of my staff, please contact Casey Rogers at (334) 262-7718 or via e-mail at casey.rogers@mail.house.gov. Thank you for your attention to this matter.

Sincerely,

Martha

Martha Roby
Member of Congress

MDR/cr