

Alabama Broadband Accessibility Fund 2018 Grant Application and Guide



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Alabama Broadband Accessibility Fund 2018 Grant Application and Guide

2018 Grant Application Guidelines

An application workshop will be held at 9:00 a.m. on Thursday, May 24, 2018, in the Alabama Center for Commerce 7th floor Auditorium. The code for the Decatur Street entrance to the parking deck is 7013#. Seating is limited; therefore, all attendees must register by calling or emailing Ms. Susan Fleeman at (334) 242-5292 or susan.fleeman@adeca.alabama.gov. An online version of the workshop and questions and answers from the workshop will be posted on the Alabama Department of Economic and Community Affairs (ADECA) website prior to May 28, 2018, at <http://adeca.alabama.gov/broadband>.

Applications shall be submitted in .pdf format by email to broadband.fund@adeca.alabama.gov

Applications will be accepted starting on May 28, 2018. Completed applications must be submitted by 11:59 PM, CST, on October 24, 2018. Any applications received after the deadline will not be considered. All applications must be complete; however, ADECA reserves the right to contact applicants for additional information and/or clarifications. All applications received will be posted on ADECA's website at <http://adeca.alabama.gov/broadband>.

Existing service providers shall have from October 25, 2018 through November 26, 2018 to file objections to the eligibility of the proposed projects. All objections must be filed by email to broadband.fund@adeca.alabama.gov and must include verifiable documentation to support the challenge.

An applicant may submit more than one application. However, each project must have a separate application and budget. Each project must stand alone in meeting the Alabama Broadband Accessibility Fund program requirements.

Eligibility

An eligible applicant is a non-government entity that is a cooperative, corporation, limited liability company, partnership, or other private business entity that provides broadband service.

Funding

Projects must be completed within two years of the effective date of the grant agreement. The grant will be in the form of a reimbursement of eligible costs up to the award amount in the grant agreement. Reimbursement will be made within 30 days of project completion and final inspection by ADECA.

All projects will be scored based on the established rating criteria. The criteria can be found at <http://adeca.alabama.gov/broadband>. Those eligible projects receiving the highest scores will be selected for funding. The number of projects funded will be determined by the funds available and the total amount of requests made. ADECA may request amended projects and/or offer reduced grant participation.

ADECA shall ensure that not less than 40% of the funds awarded will be awarded to projects serving unincorporated areas.

2018 Grant Application

Applicant Information

Project Name: Red Rock Community Broadband Project

Legal Name of Entity: National Telephone of Alabama, Inc.

Mailing Address: 236 East Capitol St, Jackson, MS 39201

Name and Title of CEO: James Garner, Vice President of Operations

Name and Title of Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone Number and Email of Contact: (601) 354-9070; LisaW@TEC.com

Project Description

This section is worth up to 15 points. Points will be awarded based on verifiable information only.

Please attach a project description in a file titled Attachment A, Project Description. The description shall include:

1. A discussion of the area served including boundaries, number of households, businesses, and any community anchors (libraries, schools, police and fire stations, hospitals, etc.). This response shall also identify if the project area is located within an unincorporated area and provide information regarding how the area meets the definition of rural (US Census data).
2. A discussion of the technology to be deployed (fiber, cable, DSL, etc.). Additionally, include a discussion of future usage projections and the ability to upgrade.
3. A discussion of internet speeds, service tier and pricing levels, data caps, etc.

4. A preliminary technical evaluation of the project certified by an engineer. The evaluation shall include a project cost estimate, project schedule and timeline to include a completion date of no more than two years, and maps showing the proposed project area. Maps should be in .shp, .kml, or .kmz formats.

Additionally, maps shall clearly show area eligibility (unserved areas). Generally, applicants may establish that an area is eligible by using the ADECA Broadband map showing unserved areas (<http://adeca.alabama.gov/broadband>). Other methodology, such as household surveys, may be acceptable, but shall be pre-approved by ADECA.

5. A discussion of the operator's technical and managerial capabilities to complete the project within two years of the effective date of the grant award.

Application Budget

This section is worth up to 15 points. Points will be awarded based on verifiable information only.

For the table, please complete the shaded boxes only. The total grant amount cannot exceed the lesser of 20% of total project costs, or \$750,000/\$1,400,000 (\$750,000 for project type A, or \$1,400,000 for project type B). If federal funds are involved in the project, please see number 4 below.

The proposed project will provide internet speeds of at least (check one):

Project Type A: ☐ 10 Mbps download and 1 Mbps upload

Project Type B: ☒ 25 Mbps download and 3 Mbps upload

Total Project Cost		\$447,822.00
20% of Total Project Cost		\$89,564.40
Total Grant Amount Requested		\$89,564.40

Please provide a detailed project budget narrative in a file titled Attachment B, Project Budget. The budget narrative shall include:

1. Itemize eligible project expenses. Generally, eligible expenses will be limited to construction and construction related costs of broadband infrastructure. Operating expenses will not be eligible expenses. Any additional expenses associated with the project, but not part of the grant budget, should be included.
2. A discussion of the applicant's necessary financial resources to:
 - a. sustain service to the project area (business model);

- b. provide adequate project financing (additional documentation may be requested by ADECA).
- 3. A discussion of any partners or subcontractors associated with the project's deliverables including but not limited to adoption, deployment, and service delivery. Please describe each party's role in the project.
- 4. A discussion of any federal funds associated with the project.
 - a. Eligible projects may include projects that have received funds through other federal universal service funding programs designed specifically to encourage broadband deployment in an area without broadband access in an amount not exceeding 50% of the total project cost, provided, however, that any award of state funds may only be utilized to either:
 - i. fund project components that extend beyond the specifications supported by the federal funding, said eligible components being extension of service to unserved rural areas not otherwise served by the federally supported project; or
 - ii. ensure that areas being served by the federal funding at speeds less than 25 Mbps of download speed and 3 Mbps of upload speed will, in fact, receive faster speeds of not less than 25 Mbps of download speed and 3 Mbps of upload speed.
 - b. Grants issued to projects receiving federal funds shall not exceed 40% of total grant funding, with such grants not exceeding 20% of total project costs.

Other Program Priorities

Please answer each of the following questions either "yes" or "no." For each "yes" answer, please provide a brief narrative and any supporting documentation. Any claims that cannot be verified will receive zero points in our scoring system. "No" answers will receive zero points in our rating system. **"Yes" answers (that can be verified) will receive up to 10 points.**

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 as defined in Section 22-21-20, Code of Alabama 1975?

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?

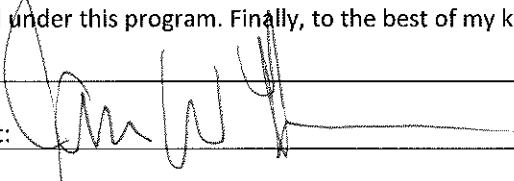
YES ☒ NO ☐

If yes, include an explanation and documentation in a file titled Attachment C

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 10 Mbps download and at least 1 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 for any area served as a result of this project there is not at least one provider of terrestrial broadband service that is either:
- a. offering a connection to the internet meeting the minimum service threshold; or
 - b. 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 within five years of the effective date of the Broadband Accessibility Act.

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: 10/22/18
Title of Applicant: Vice President of Operations	

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.

Attachment A

Project name: Red Rock Community Broadband Project

Legal name of entity: National Telephone of Alabama, Inc.

Mailing address: 236 East Capitol St, Jackson, MS 39201

Name and title of CEO: James Garner, Vice President of Operations

Grant Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone: 601-354-9070 Email: LisaW@TEC.com

Project Description

- 1. Description of the Proposed Funded Service Area (PFSA) and why the project is needed:** The PFSA is a geographically contiguous area called the Red Rock Community in the city of Tuscumbia and in rural northern Colbert county, AL. The city of Tuscumbia has a population of 8,506 inhabitants and Colbert county has a population of 54,377 per factfinder.census.gov 2016 ACS 5-year estimate data and per the requirements of this application is defined as a rural area and the PFSA (Red Rock Community) is in an unincorporated area of Colbert county. It is also not adjacent to a city or town that has a population of 50,000 inhabitants.

The purpose of the Red Rock Community Broadband Project is to utilize state grant funding along with our cash match of 80% to leverage National Telephone of Alabama, Inc.'s ("NTA's") existing network infrastructure, thus, rapidly expanding broadband services into the underserved areas in the Red Rock community in northern Colbert county, Alabama. As reflected from the ADECA broadband map, the majority of this area does not have a provider serving 10.0/1.0 service, a small portion reflects NTA as serving a 10/1 service but this is inaccurate. The map is derived from our reporting on the form 477 to the FCC, which shows the entire census block covered when only a portion of the block (a portion not in our PFSA) has 10/1 service available on a bonded copper loop. This PFSA is too far from the remote to provide a 10/1 service on a bonded copper loop. NTA's LEC serving area does not extend to Red Rock area, the copper infrastructure ends at the LEC boundary approximately .6 miles west of Red Rock Road. In addition, this area also requires a rock contingency when bidding to contractors for burying or boring fiber, which makes it 20% to 25% more expensive than construction in other parts of Alabama.

NTA has already invested in and deployed the majority of the technology and infrastructure required to provide a full range of broadband services in the City of Cherokee in Colbert county and would like to continue that infrastructure with the Red Rock Community Broadband Project. NTA is proposing to build approximately 14.9

miles of fiber to reach remote locations in the more rural area of the county that would be too costly to serve without the assistance of this grant funding, thus providing quality high speed internet services to approximately 279 customers, within 124 locations in approximately 1 square mile of rural Alabama who currently do not have access to broadband service as defined by the ADECA grant guidelines. NTA plans to build approximately 6.9 miles of distribution fiber to Red Rock Community area and make Fiber to the Home (FTTH) service available to all locations within the proposed funded service area with an additional 8 miles of drop fiber to provide up to Gigabit speeds. Additionally, these services will be offered with the commitment of NTA to insure excellent local customer care and competitive pricing. Our focus is directed to the drop fiber applications that literally connect the less-seen, rural areas of Alabama with the main broadband centers in the state. A detailed description of the boundaries and project design are in part 2 of this attachment.

Number of Households and Businesses Passed: The Red Rock Community Broadband Project service area includes a total population of approximately 279. This area represents an estimated 124 households per the RUS mapping tool. Per NTA research none of these locations are businesses. but there are multiple farms, and the remaining locations are residential.

Number of Critical Community Facilities, Public Safety Entities, etc.: Per the Colbert County Commissioners, a storm shelter has been approved for this area and will be located in this area. The Red Rock Storm Shelter is a critical community facility and a public safety entity and will be located inside the PFSA at 3390 Red Rock Road, Tuscumbia, AL. NTA, as a community service, will provide an outdoor wireless access point to this location for city and county public safety entities during emergencies, if this project is approved and funded. NTA will provide 24 months of broadband service at the broadband speed of download 25.0 mbps and upload 3.0 mbps (25.0/3.0), WIFI service at the storm shelter location for public safety utilizing its own funds. Storm shelters are installed by the county to provide a safe zone during tornadoes for local residents. These shelters measure approximately 10 feet by 24 feet, can hold up to 40 individuals and are built from ¼” solid steel plate. Each shelter has forced air ventilation and lighting, as well as, bench seating. Doors have three heavy duty locks on the inside and a separate keyed lock on the outside for security. Doorways are handicap accessible. Alabama ranks number one in the nation in most violent tornadoes. According to the National Weather Service statistics, Alabama has had an average of 44 tornadoes per year from 1991-2010, during this same period there were an average of 7 fatalities resulting from these tornadoes annually. Mobile cellphone coverage in this area is weak and providing broadband service to the storm shelter location would be imperative during a weather disaster for residents taking refuge in the shelter and to first responders in the area. A letter of participation and support from the Colbert County Commissioners is attached.

Proposed Funded Service Area (PFSA) Needs: The inhabitants of Red Rock community located in the northern portion of Colbert county need access to health care, government services, and educational and business opportunities, just like every person living in urban areas. Access can only be gained by using broadband services and sophisticated technologies that require high-speed connections. According to the Federal Communications Commission, 39 percent of rural Americans lack access to 25 Mbps/3 Mbps service, compared to only 4 percent of urban Americans. Specifically, in the Red Rock community, current and future generations will be left behind if they are without affordable high-speed broadband service that enables them to tap into health care and educational services, government agencies, and new business opportunities.

Public safety issues: The Red Rock Storm Shelter is a critical community facility and a public safety entity and will be located inside the PFSA. Broadband access would allow community members to have a way to communicate during a weather disaster for help or news. The Colbert County Emergency Management Agency covers this PFSA, but is located outside the PFSA and is already being served broadband speeds by NTA. This entity and the Cherokee Volunteer Fire Fighters have documented their support and the need for broadband service for emergency communication and training for first responders in this community in their support letters.

Economic characteristics: The Red Rock Community Connect Broadband Project is proposed for rural Colbert county, AL which, according to census data, has 15.5% of the population under the poverty level, significantly higher than the national average of 14.7% and the average in the state of Alabama is 18.4%. The unemployment rate is 7.3%, with a median income of \$39,798 per household, significantly lower than the average \$44,758 in the state of Alabama. In addition, the population of disabled is 19.6%, as compared to the population of disabled in the state of Alabama of 16.3%.

Per factfinder.census.gov 2016 ACS 5-year estimate data, 16.5% of the population in this county did not finish high school when polled about educational attainment. There are no businesses in this PFSA, so there are no major employers in the PFSA. However, there are farms in the area.

Demographic Information by County and State

(sourced from www.factfinder.census.gov 2016 ACS 5-year estimate data)

Demographic Statistics based on 2016 Census Data	Colbert County	Alabama
Average Household Income	\$39,798	\$44,758

% Population under the Poverty Level	15.5%	18.4%
Population of Disabled	19.6%	16.3%
Unemployment Data of Age 20 and Older	7.3%	7.8%
Educational Attainment – does not complete high school	16.5%	15.2%

The PFSA desperately needs the availability of the broadband service. Access to government services and health care through telemedicine for the disabled, educational and business opportunities for the unemployed and public access to the internet at the community center for everyone. According to the Shoals Chamber of Commerce, an educated and trained workforce is the number one key driver for companies looking to locate or expand their businesses. Internet access has become a vital component of both education and workforce readiness. Children are the workforce of tomorrow and education and technical skills are mandatory for preparing them for the job opportunities that will be available when they enter the workforce.

Internet access would provide opportunities for job hunting and for students who need internet access for homework and school projects. According to the Pew Research Center analysis from April 20, 2015, of the Census data, the lowest-income households have the lowest home broadband subscription rates. Roughly one-third (31.4%) of households whose incomes fall below \$50,000 and with children ages 6 to 17 do not have a high-speed internet connection at home. This low-income group makes up about 40% of all families with school-age children in the United States, according to the bureau's American Community Survey. Providing opportunity and encouragement to be able to keep up with their classmates and assignments could curb the drop out statistic in Colbert county.

In addition, building broadband to the PFSA would make it more attractive to businesses to locate in the area, providing more job opportunities and providing broadband access to local farmers. Access to broadband would allow their farming businesses to be more efficient, economical and environmentally friendly. Today's farmers and ranchers are using precision agricultural techniques to make decisions that impact the amount of fertilizer a farmer needs to purchase and apply to the field, the amount of water needed to sustain the crop, and the amount and type of herbicides or pesticides the farmer may need to apply. These are only a few examples of the ways farmers use broadband connectivity to achieve optimal yield, lower environmental

impact and maximize profits. Farmers rely on broadband access to manage and operate their businesses, the same as small businesses do in urban and suburban America.

Working from home would become an option and would also expand the job opportunities in this area.

Educational challenges: When used as part of a comprehensive educational strategy, technology provides access to tools, resources, data, and support systems that all increase teaching and learning opportunities. Such environments enable individualized, competency-based learning that can take place anywhere and anytime. While there is not a school located inside the PFSA, there are students of the Colbert County Schools living in this area. As documented in the attached support letter from the Colbert County Schools, both inadequate access to the internet and slow internet speeds inhibit schools in rural communities from taking advantage of the online components of personalized learning, as online platforms and materials are not accessible from student homes. This digital divide is known as the ‘homework gap’ and is defined as the gap between those with access to the internet and those without. Providing the community with broadband access to their homes is necessary for these students to not be left behind.

Health care needs: There are no public medical clinics or hospitals in the PFSA however, as documented in the letter from the Cherokee Family Clinic it is vital for rural areas like the Red Rock community for residents to have access to patient care through telemedicine and online portals. Hospital-based telemedicine and remote monitoring capabilities that extend access to specialty care and other services are becoming an increasingly popular option for patients and providers. The use of telemedicine and remote monitoring tools that extend care into the home are applicable to many healthcare situations ranging from primary care to emergency care.

As more healthcare consumers cite the benefits of telemedicine, such as convenience and lower travel costs, hospitals are beginning to meet consumer demands while capitalizing on the improvements telemedicine brings to their healthcare services.

Patients can monitor their vital signs and answer symptom questions daily through a single user portal. Portals can be customized to a patient’s specific disease condition and experience and can be used by patients to alert providers about health conditions in real time.

The aim of telemedicine and patient monitoring is to improve health outcomes for chronic conditions involving cardiac disease, respiratory issues, and diabetes. These new digital healthcare initiatives also help with organizational goals such as reducing hospital admissions and keeping patients comfortable in their homes. With the high population of disabled in this community the need for online patient care can be remedied by the availability of broadband service.

2. System Design

A detailed description of the existing network: TEC has been meeting the communication needs of the rural south since 1923. National Telephone of Alabama, Inc. (NTA) is a wholly-owned subsidiary of TEC and has provided voice service since 1968 and internet service since 1995. Currently, NTA serves voice to 1,320 customers in its certificated area and internet service to 782 customers in Colbert county, AL and has made broadband available to over 90% of the approximately 300 square miles of the incumbent ILEC service area. Currently, NTA passes approximately 3,114 locations with broadband service in Colbert county in Alabama. With NTA's highly skilled and experienced customer care and technical staff of 6 employees located in Cherokee, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network.

Standards based, RUS approved, technology is used, and the network has been constructed using RUS standard construction practices. NTA currently has 26 remote concentrators (Adtran TA5000) positioned throughout its network, which are served as fiber to the node (FTTN). Approximately 97% of the census blocks included in the serving area are utilizing the existing copper plant. Utilizing ADSL2+ and VDSL technology in the remotes, this copper plant is being bonded to provide 25.0/3.0 broadband service up to 8,000 feet of the remote concentrators. Each serving remote has been 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. All sites are monitored by remote alarm systems and alarms are responded to 24X7 by on-call and network operations center (NOC) personnel. If the commercial power were to be affected for an even longer period, TEC can provide longer-term temporary power via fixed or portable generators as necessary. A detailed disaster recovery plan is on file and updated annually.

Approximately 3% of the census blocks included inside the service area are being served by a fiber to the home network design. The equipment strategy for any expansion project is to leverage existing fiber as much as possible to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Red Rock Community Project will not require upgrades to the existing network, but will be an extension of that network utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10Gbps or Point to Point 10Gb/s connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location.

A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30Gbps of 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 TEC's network's edge to our Internet peering locations is typically well below 20ms.

A detailed description of the proposed network: The equipment strategy for this expansion project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through multiple distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Red Rock Community Project will not require upgrades to the existing network but will be an extension of that network utilizing the FTTH network design described here. This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10 Gbps or Point to Point 10 Gbps connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location.

A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10 Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30Gbps of 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 TEC's network's edge to our Internet peering locations is typically well below 20ms.

The proposed plan is to connect to the fiber at the Barton Central Office located on Mulberry Lane with fiber. An OLT will be installed in this existing Barton central office location. From this location to the intersection of Mulberry Lane and Lee Highway (Hwy 72) is approximately .4 miles. From this intersection, fiber would be constructed approximately 2.4 miles east on Highway 72. Along the route going east there are two county roads intersecting Highway 72 and fiber would be built down each road to any existing location within the PFSA (Red Rock Road – 1.9 miles and Church loop - 1.0 miles); Intersecting Red Rock Road are Cherry Lane - .6 miles and Patrick Lane .6 miles, totaling 6.9 miles. Two distributed 1:32 pole mounted optical splitters have been planned at the intersection of Red Rock Road and Hwy 72 and Red Rock Road and Cherry Lane. This proposed design will deploy single mode fiber optic cables constructed utilizing RUS approved construction techniques. All the fiber will be buried and

placed in existing previously disturbed public rights-of-ways. To provide a more secure reliable fiber footprint all the buried fiber will be placed at a minimum depth of 36 inches unless other depths are required by the affected highway, railroad, municipalities or other authorities. The two methods of buried construction that will be utilized are predominately plowing with directional boring utilized when road or stream or other types of crossings are required. Directional boring will also be utilized when it is not possible to plow or boring is more feasible construction. Along the buried fiber route, flush-mounted handholes will be deployed with the proposed fiber being accessible at each location. This will allow for easy access to the network and makes future expansions more economical and feasible.

OSP contractors will complete RUS bidder qualification forms and be cleared by engineering to have experience with RUS standards of construction and will construct the middle mile construction. All activity will be supervised by resident engineers and inspectors from Joseph D. Fail Engineering Company (JDFEC), a licensed engineer, a member of ACE, with over 50 years of experience with RUS projects. JDFEC has also reviewed the network diagram and system plan and approved the project.

At the completion of distribution fiber construction, NTA technicians will install the OLT in the Barton Central Office. The service will be marketed during the middle mile construction and as the service is sold, local outside plant employees will bury the drop fiber and install the CPE to turn up the customers. The estimated number of establishments to be served following the distribution fiber build is estimated based on the internet take rate average in rural America, which is 63% per the study released by Pew research' "Digital gap between rural and nonrural America persists", published May 19, 2017. Per the RUS mapping tool, the establishments passed will be 124 and using a 63% take rate will calculate to be 76. Every household and business within the PFSA will be offered broadband service at the Broadband Grant Speed of 50/5 or more when the system is complete. The distribution fiber build has been carefully planned to follow the county roads to cover all existing locations and two handholes have been planned every mile with slack fiber to allow for future growth. The distributed splitters ensure the fiber scalability for growth or expansion as needed.

The PFSA will be built for up to a Gigabit offering and will not be oversubscribed at all based on the minimum required offering of 25.0/3.0 per user. Standard GPON technology will have virtually no link loss. All systems will maintain a redundant failover to maintain a high state of system availability.

3. Discussion of internet speeds, service tier and pricing levels: The service will be marketed during the mainline or distribution construction and as the service is sold, local outside plant employees and contractor will bury the drop fiber and install the CPE to turn up the customers. The estimated number of establishments to be served following the mainline or distribution fiber build is estimated based on the internet take rate average in rural America, which is 63% per the study released by Pew research' "Digital gap between rural and nonrural America persists", published May 19, 2017. Per the RUS mapping tool, the establishments passed will be 124 and 63% take rate will calculate to be 76 over a two-year period. Every household within the PFSA will be offered a starting broadband service of 50.0/5.0 for \$39.95 for

12 months as the promotional rate when the system is complete and then will be moved to the retail rate of \$59.95. Higher bandwidths and promotions will also be available (see below) with no data limits:

Service Tier (no data limits)	12 Month Promotional Rate	Retail Rate
50.0/5.0	\$39.95	\$59.95
100.0/10.0	\$49.95	\$69.95
300.0/20.0	\$69.95	\$89.95
500.0/25.0	\$89.95	\$109.95

4. Technical Evaluation, Timeline and Explanation of Total Project Costs: The total infrastructure cost for the proposed Red Rock Community Broadband Project is \$447,822. The infrastructure is proposed to be funded through the use of Alabama Broadband Accessibility Grant funds in the amount of \$89,564.40 and NTA cash reserves in the amount of \$358,257.60. NTA will fund continuing operating expenditures from internal working capital available funds.

Attachment A-4 is a technical evaluation of the project certified by an engineer, containing our project cost estimate, project schedule and timeline, as well as, a .shp file and ADECA map file of the proposed project.

Documentation of Broadband Availability

Resource	Contact Person	Result
ADECA map	http://adeca.alabama.gov/broadband	Map showed PFSA as eligible for funding (except for the areas reported by NTA (TEC) which were only for a portion of the census block)
Residences and businesses within the PFSA	Surveyed and confirmed with 17 locations along Red Rock Road and throughout the PFSA and surrounding area	10.0/1.0 broadband was not available from any terrestrial broadband source to these locations – signed letters from homeowners in the community are attached
Speedtest.net	Local manager ran a test on his mobile phone at multiple locations in the PFSA to test for the 10.0/1.0 broadband service availability over mobile service demonstrating the limited cell phone access in the area and the need for access to broadband for emergency communications for Public Safety Entities.	<p>Download 0.54mbps Upload 0.01mbps Intersection of Red Rock Rd and Hwy 247 GPS: N34.67934 W087.81252</p> <p>Download 13.8mbps Upload 0.67mbps Intersection of Church Loop and Hwy 72 GPS: N34.73203 W087.86859</p> <p>Download 8.33mbps Upload 2.81mbps Intersection of Hwy 72 and Red Rock Rd.</p> <p>Download 0.54mbps Upload .01mbps Intersection of Red Rock Rd and Hwy 247 GPS: N34.67934 W087.81252</p> <p>Download 13.8mbps Upload 0.67mbps Intersection of Church Loop and Hwy 72 GPS: N34.73203 W087.86859</p> <p>Download 8.33mbps Upload 2.81mbps Intersection of Hwy 72 and Red Rock Rd.</p> <p>Download 0.22mbps Upload 0.42mbps 635 Church Loop GPS: N34.72827 W087.859.80</p> <p>Download 8.08mbps Upload 0.71mbps Intersection of Cherry Lane and Red Rock Road GPS: N34.71910 W087.86452</p>

5. Description of Applicant: TEC has been meeting the communication needs of the rural south since 1923. National Telephone of Alabama, Inc. (NTA) is a wholly-owned subsidiary of TEC and has provided voice service since 1968 and internet service since 1995. Currently, NTA serves broadband to over 780 locations in Colbert county, AL and has made 10.0/1.0 service available to over 90% of the 300 square miles of the incumbent LEC service area. With NTA's highly skilled and experienced customer care and technical staff of 6 employees located in Cherokee, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network. The Red Rock Community Broadband Project is an extension of the existing broadband services and outside plant connectivity to reach the unserved and underserved locations in the east central portion of Colbert county, AL that cannot feasibly be reached without grant funding or other opportunities.

Management Team Experience:

Joseph D. Fail

Leading TEC and National Telephone of Alabama, Inc. (NTA) is our President, Mr. Joseph D. Fail. Mr. Fail has been President and majority stockholder of TEC since 1990. Mr. Fail currently is President and Chairman of the Board for the majority of TEC's subsidiary companies. Mr. Fail graduated from Bay Springs High School and furthered his education at Louisiana State University by receiving a Bachelor of Science Degree in Electrical Engineering in 1961. At this time, he began his engineering career with Bay Springs Telephone Company, Inc. in Bay Springs, Mississippi. In 1968, Mr. Fail formed Joseph D. Fail Engineering Company, specializing in telecommunications engineering. In 1972, Mr. Fail formed TEC, the parent company for NTA.

Mr. Fail has a Professional Engineering License in the States of Louisiana, Mississippi, Oklahoma, and Texas. He has served as President of the Eastern Borrowers' Association (EBA), served on the Board of Directors for many years. Mr. Fail has been a Director and President of Alabama-Mississippi Independent Telephone Association. He is a member of the National Society of Professional Engineers, Mississippi Engineering Society, Association of Communication Engineers, and the Independent Telephone Pioneer Association. He is a Board Member for the Southern Baptist Convention's Guidestone Financial Resources and a Board Member at William Carey College in Hattiesburg, Mississippi. He is a member of the Bay Springs Chamber of Commerce.

Mrs. Joey F. Garner

Joey F. Garner serves as Executive Vice President at TEC. Joey has over twenty-five years' experience in the telecommunications industry and has worked with TEC and its subsidiaries,

including National Telephone of Alabama, Inc. (NTA) since 1991. She is a graduate of Vanderbilt University where she received a Bachelor of Arts in English.

Through her years of employment with TEC Joey has worked in the Commercial and Employee Benefits Departments. Joey also established TEC's marketing department in 1993. At this time, Joey worked closely with TEC's local telephone companies, including NTA, to develop an annual marketing plan and budget for each company. The marketing plan includes monthly bill inserts, newspaper advertisements, radio and television advertisements, billboards, web site, and on-site collateral. Joey has since become the Executive Vice President and leads the TEC team and works daily with NTA's commercial, operations and billing departments to establish new product offerings and pricing structures.

Joey is a board member for a number of TEC's companies, including NTA. She was selected as Mississippi's Business Woman of the Year in 2009. Joey is a past board member of OPASTCO and of the Alabama-Mississippi Telephone Association (AMTA). She currently serves as a board member for the OmniBank.

Mr. Joseph C. Piro

Joseph C. Piro has over thirty years; experience in the telecommunications industry in the area of Finance and Administration. He has been employed by TEC since 1994. He currently serves as Vice President of Administration and Treasurer for TEC. Mr. Piro's current areas of responsibility include Accounting, Human Resources, and Information Technology.

Recently, Mr. Piro was key in the centralization of TEC's Human Resources Department and the standardization of policies and practices that involve hiring, employee retention, benefits, safety, and payroll. He also coordinated and worked closely with NTA and TEC subsidiaries in the centralization of cash management to provide increased earnings on excess cash and improved internal controls over accounts payable. Additionally, Mr. Piro led the team of TEC management that established electronic data storage for more efficient use of resources including the ability to retrieve documents through remote connections.

Mr. Piro brings years of experience with TEC companies and has great management skills that he has exemplified during his fifteen years of service with TEC. He has implementing improved management reporting timelines for financial statement presentations that greatly have benefitted all TEC companies. With his numerous responsibilities at TEC, Mr. Piro has exhibited leadership qualities that will enhance the ongoing survivability of the Red Rock Community Broadband Project.

Mr. Piro currently serves on the Board of Directors for numerous TEC subsidiary companies. He graduated from Northeast Louisiana University in 1986 after earning a Bachelor of Business Administration Degree in Accounting. He is also licensed in the State of Mississippi as a Certified Public Accountant.

Mr. James W. Garner

James W. Garner is Vice President of Operations for TEC, the parent company of National Telephone of Alabama, Inc. (NTA). James is responsible for TEC's operations department, working closely with NTA and its sister companies. He leads the operations department in every aspect, including strategic planning, budgeting, project management, construction, technology upgrades, new service implementation and maintenance. He works daily with operations team members insure that NTA and sister companies provide quality broadband services to all customers.

In 1995 James established the dial-up Internet business for NTA and, subsequently, for the remainder of TEC's ILEC properties including NTA. This effort included developing business plans, selecting technology and vendors, developing timelines and budgets, implementation schedules and creating product offerings. The project also involved working with construction contractors and engineering consultants. As ADSL access technology emerged, James led the local management team in the introduction of broadband Internet access to NTA customers.

James played the lead role in building TEC's legacy ATM core network, which enabled NTA and the other TEC companies to provide superior broadband access. Continuing to work with TEC's operations team and local telephone companies, James directs the Ethernet project implementation and the TEC Security project. James is particularly active in special projects involving strategic fiber optic deployments to deliver Ethernet services to schools and industrial park projects within the TEC service area.

James is a graduate of Mississippi State University with a Bachelor of Science and a Masters of Science Degree in Mechanical Engineering where he focused his post-graduate work on thermal analysis and fluid dynamics. After working at Rockwell International on various NASA Space Shuttle and Department of Defense weapons projects, James began working for TEC in 1992. Currently, James serves as board member for a number of TEC's subsidiaries. He also has also served as President of the Alabama-Mississippi Telephone Association (AMTA) and as a board member for the Tennessee Telephone Association. James has also served on numerous industry committees, including the OPASTCO Technical Committee. He also been a member of the NECA Rate Development Task Force Cost Recovery Committee.

Ms. Lisa Wigington

Lisa Wigington is Director of Revenue Assurance and Regulatory Compliance for TEC, a

communications company offering voice, broadband and data solutions to business and residential customers throughout the Southeast. Lisa holds a Bachelor and a Master of Professional Accountancy from Mississippi State University and worked in public accounting for the regional firm Whitaker, Lipp and Healea for four years before moving to the telecommunications industry. Lisa is a Certified Public Accountant and holds a Certification as a Project Management Professional. She has been employed with TEC for 24 years, first in the financial department and currently in operations, creating models for new products and product lines and managing the initiation, planning and execution of those projects.

In November 2005, Lisa was directed to plan and execute a billing conversion for nine of the TEC affiliates, including National Telephone of Alabama, Inc. (NTA). Lisa created timelines, gathered a small conversion project team and assigned tasks. The team converted over 30,000 billing records for the nine companies, including building call plans, testing and analyzing call records side by side, creating plant facilities records and CABs billing records for each of the nine companies over an eighteen-month period. When the conversion was complete, Lisa assembled a Billing Operations Support team and trained them to continue the everyday operations of the billing system and to support the companies. This process also included preparing a set of operations procedures for the monthly billing cycle.

In December 2008, Lisa was assigned the task of developing a new line of business using existing personnel and resources. A home security division was launched in three companies, including NTA. Lisa created the financial model, which included a breakeven analysis, and presented to executive management for approval. Once approved, Lisa assembled security teams at each of the companies, set up training for certifications for these members, and created all required forms for the sales agreements and installation checklists. Lisa also set up an agreement with a third-party monitoring company for the monitoring support. An incentive sales plan was then created, and the team has become very successful.

From 2008 to present, Lisa worked with the TEC Operations team, consisting of James Garner, Forrest Collier and Brent Fisher on several additional projects; the Ethernet upgrade project, IPTV project, the soft switch installation project for six telephone companies and most recently the mapping migration and upgrade for six companies. Lisa and the team have a close working relationship to the engineering consulting firm and are heavily involved in the construction projects for all of the affiliate companies, including NTA. The operations team is responsible for developing construction projects, creating a capital budget, creating and managing the timelines and action items for each project and is in constant communication with the company plant personnel, engineers and contractors to ensure execution of each project.

In 2010 Lisa wrote a Broadband Initiatives Project (BIP) application for National Telephone of Alabama, Inc. (another subsidiary of TEC), which was awarded by RUS. Lisa and the

operations team successfully managed the construction and all compliance reporting of this successful BIP project and it was completed on time and within budget.

Mr. Brent Fisher

Brent Fisher joined TEC in 1999 bringing 23 years of experience in the Information Technology and Network Communication fields. He currently serves as Director of LEC Network Operations at TEC and works daily with National Telephone of Alabama, Inc. (NTA) and its sister companies.

Brent's experience includes designing and maintaining large LAN / WAN infrastructures utilizing state of the art routers and switching equipment. Through his administration of internet service provider facilities he has garnered vast knowledge and experience of Internet Protocol switching and Network integration.

Using this experience and knowledge, Brent was instrumental in building TEC's ATM "Core" backbone. Working closely with the TEC operations group, Brent led this effort that made TEC the first ILEC to inter-work its network through a carrier's cloud. This backbone is used to transport Broadband traffic destined for other TEC holdings and traffic bound for the internet gateway. As a leader on TEC's operations team, Mr. Fisher works closely on a daily basis with each of TEC's six telephone companies, including NTA, to insure the local connectivity is working effectively.

Brent earned a Bachelor's Degree in Business from Belhaven College and holds many certifications in the Computer and Networking industry. He also holds credentials as a Project Management Professional and a Certified Data Processor.

Mr. Forrest Collier

Forrest began his career in the telecommunications industry in 1984 with Radio Engineering and Maintenance Company (REMCO) as a Communications Technician. He then worked for Western Union Telegraph Company as a Microwave Maintainer supporting networks throughout Ohio. Forrest returned to REMCO as Service Manager coordinating the technical service operations.

He served as Systems Operations Manager for Paging USA in Indianapolis, Indiana, with the responsibility for wireless networks throughout the state of Indiana.

Forrest later returned to Ram Technologies, the parent company of REMCO, as Vice President of Engineering. In this position he was responsible for paging networks in multiple states, switching centers for paging, call centers and long distance networks. In 1999 Ram Technologies sold its assets to Unity Communications of Ridgeland MS. Forrest came to Unity

as Vice President of Engineering with the responsibility for all of Unity's paging networks, facilities and IT departments.

In 2002 Forrest accepted a position with Cadence Design Systems as a Project Manager. Cadence sold the Mississippi location to Motorola and then became part of Freescale Semiconductor. At Freescale, Forrest had responsibility as Analog Products Division, World Wide Program Controller with oversight for projects globally. He later accepted the position as Project Management Office Manager coordinating project management for Analog globally with a staff of 25 project managers. Freescale executed IC design projects for companies including Sony, Samsung, Visteon, CASS Automotive, Intel and many others. The PMO team was responsible for developing budgets and timelines and managing project teams with monitoring / controlling project cost, scope and schedule. While at Freescale, Forrest received his Project Management Professional (PMP) Certification from the Project Management Institute.

In 2008 Forrest joined TEC and now serves as the Director of Operations with responsibility for Outside Plant Operations in TEC's six telephone companies, including National Telephone of Alabama, Inc. (NTA). Forrest works with the various markets on day to day operations, plant and facilities issues and coordination of safety. He has brought his experience to TEC to enhance project management capabilities. With NTA, Forrest applies his project management experience daily. While at TEC, Forrest has driven numerous projects including the renovation of multiple offices and upgrades of central office facilities. Additionally, Forrest has implemented safety procedures at NTA and other telephone companies. Forrest works daily with the operations management team to insure directives are communicated with local managers and implemented according to the proper guidelines.

Mr. Troy Rutland

Troy Rutland is the General Manager for National Telephone of Alabama, Inc. (NTA).

Mr. Rutland began his career in telecommunications in 1983 with the United States Air Force where he served as a Wideband Communications Radio Technician. He attained a 7 skill level, a rank of Staff Sergeant and served as an Instructor in the Wideband Technical School. He received the John C. Levitow award as the top Airman in his NCO Preparatory class in 1985.

In 1988 Troy began work in the Cellular Telephone industry as a Mobile Telephone Switching Office Technician. He later served as Director of Engineering for multiple markets and was responsible with coordinating growth and expansion of the network as well as securing FCC filing information. He was the General Manager of a wireless operating company for 6 years with responsibilities for all aspects of commercial and network operations.

Troy joined NTA in 2003 as a technician and was promoted to General Manager in 2006. He has been involved in the Broadband expansion at NTA from early on. He is responsible for Central Office, Outside Plant as well as Commercial operations at the local level.

Troy has been active in community projects. He is on the Cherokee Business Counsel and is active in the Chamber of Commerce. Troy served as the President of a local Jaycee Chapter from 2000-2001 and was awarded Lifetime Membership in the Tennessee Jaycees in 2003.

Red Rock Community Connect Project Team Track Record

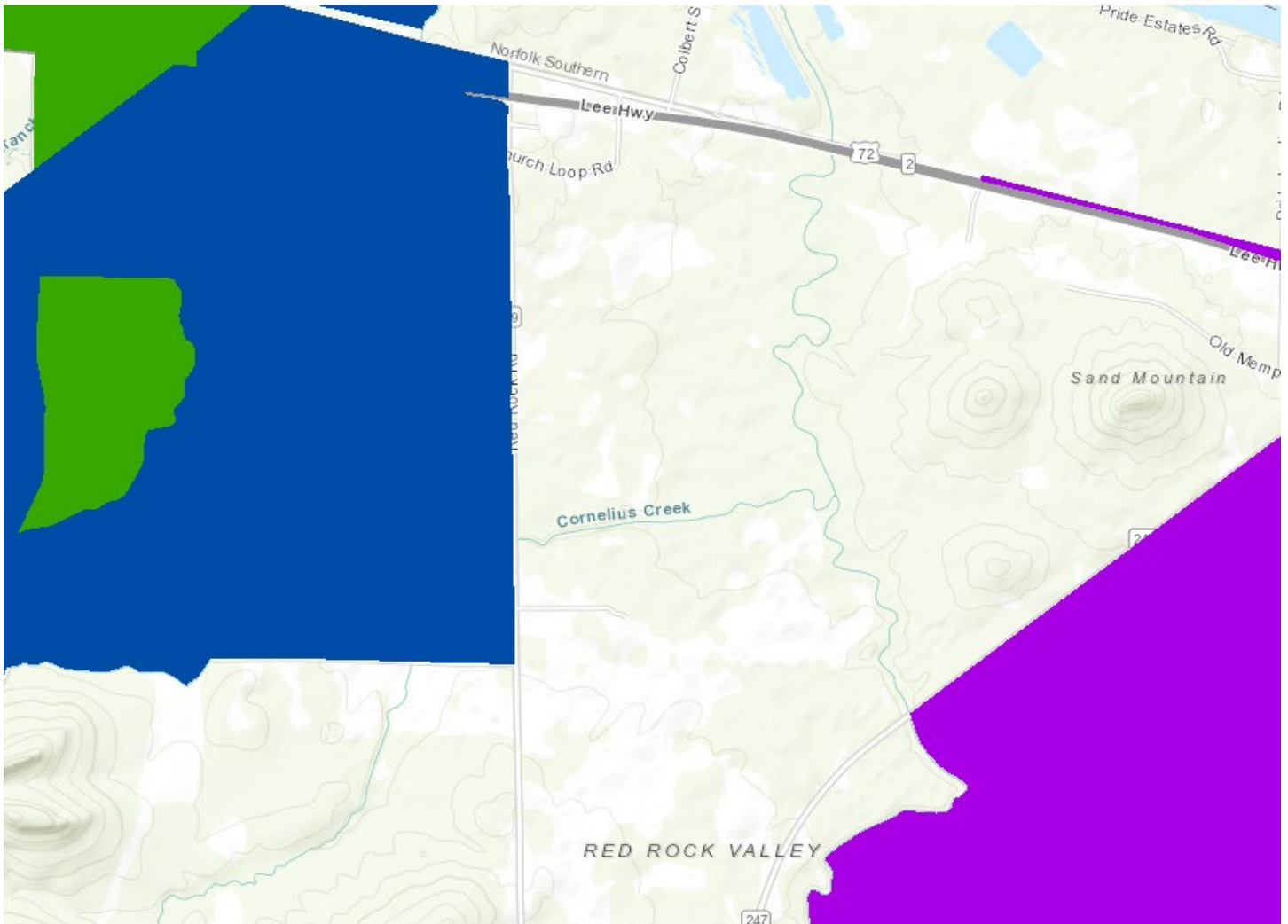
National Telephone of Alabama, Inc. (NTA) management team has a combined total of over 200 years of experience in the telecommunications industry. The team working to secure and proceed with this project consists of Mr. Joseph Fail, Mr. Joe Piro, Mr. James Garner, Mrs. Joey Garner, Ms. Lisa Wigington, Mr. Brent Fisher, Mr. Forrest Collier and Mr. Troy Rutland, as well as other experienced managers and staff. The majority of these team members average over twenty years of experience working with NTA and its sister companies. As mentioned above this is basically the same core management team that was awarded the BIP project by RUS at National Telephone of Alabama, Inc. which was successfully completed on budget and on time.

Mr. Garner is leading the effort to reach more rural customers in Colbert county. As Vice President of operations for TEC, Mr. Garner works with NTA and sister companies on a daily basis to ensure that all projects are complete and goals are fulfilled. He works closely with the management team of Lisa Wigington, Forrest Collier and Brent Fisher to make sure the network is at full capacity to serve NTA customers. Mr. Garner, Ms. Wigington, Mr. Fisher and Mr. Collier currently meet weekly to coordinate all outside plant and central office functions at NTA. The team plans to continue this type of planning session with the direct focus on the Red Rock Community Connect Project if our application is approved.

Within the realm of the proposed funded service area, NTA plans to follow similar steps that currently are followed for new technology and product offerings. Under the leadership of Mr. Garner, the operations department introduces new technologies for NTA and sister companies. Ms. Wigington and Mrs. Garner review the offerings and suggest new product packages and pricing. Once the new products are approved by Mr. Garner, the experienced staff of Mr. Collier and local staff will assist with the implementation in Colbert county. All aspects of a new product are reviewed and discussed by the team working on this project. These aspects include cost, revenue, billing, network management, implementation, training, and marketing. Each team member has special talents that combine with others to insure every detail is covered thoroughly and diligently.

Attachment A-4 ADECA map support for unserved Red Rock area

The ADECA map represents a portion of the proposed funded service area as served 10.0/1.0 by NTA, however that is incorrect. The FCC form 477 information that this map is based on, colors the whole census block as served even if we serve a handful of customers that speed on the western edge of the census block by bonded copper.



**National Telephone of Alabama, Inc.
Red Rock Community Broadband Project
Preliminary Technical Evaluation by Certified Engineer**

System Design and Cost Estimate

A detailed description of the existing network: TEC has been meeting the communication needs of the rural south since 1923. National Telephone of Alabama, Inc. (NTA) is a wholly-owned subsidiary of TEC and has provided voice service since 1968 and internet service since 1995. Currently, NTA serves voice to 1,320 customers in its certificated area and internet service to 782 customers in Colbert county, AL and has made broadband available to over 90% of the approximately 300 square miles of the incumbent ILEC service area. Currently, NTA passes approximately 3,114 locations with broadband service in Colbert county in Alabama. With NTA's highly skilled and experienced customer care and technical staff of 6 employees located in Cherokee, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network.

Standards based, RUS approved, technology is used, and the network has been constructed using RUS standard construction practices. NTA currently has 26 remote concentrators (Adtran TA5000) positioned throughout its network, which are served as fiber to the node (FTTN). Approximately 97% of the census blocks included in the serving area are utilizing the existing copper plant. Utilizing ADSL2+ and VDSL technology in the remotes, this copper plant is being bonded to provide 25.0/3.0 broadband service up to 8,000 feet of the remote concentrators. Each serving remote has been 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. All sites are monitored by remote alarm systems and alarms are responded to 24X7 by on-call and network operations center (NOC) personnel. If the commercial power were to be affected for an even longer period, TEC can provide longer-term temporary power via fixed or portable generators as necessary. A detailed disaster recovery plan is on file and updated annually.

Approximately 3% of the census blocks included inside the service area are being served by a fiber to the home network design. The equipment strategy for any expansion project is to leverage existing fiber as much as possible to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Red Rock Community Project will not require upgrades to the existing network, but will be an extension of that network utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10Gbps or Point to Point 10Gb/s connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within

the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location.

A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30Gbps of 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 TEC's network's edge to our Internet peering locations is typically well below 20ms.

A detailed description of the proposed network: The equipment strategy for this expansion project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through multiple distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Red Rock Community Project will not require upgrades to the existing network, but will be an extension of that network utilizing the FTTH network design described here. This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10 Gbps or Point to Point 10 Gbps connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location.

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The proposed plan is to connect to the fiber at the Barton Central Office located on Mulberry Lane with fiber. An OLT will be installed in this existing Barton central office location. From this location to the intersection of Mulberry Lane and Lee Highway (Hwy 72) is approximately .4 miles. From this intersection, fiber would be constructed approximately 2.4 miles east on Highway 72. Along the route going east there are two county roads intersecting Highway 72 and fiber would be built down each road to any existing location within the PFSA (Red Rock Road – 1.9 miles and Church loop - 1.0 miles); Intersecting Red Rock Road are Cherry Lane - .6 miles and Patrick Lane .6 miles, totaling 6.9 miles. Two distributed 1:32 pole mounted optical splitters have been planned at the intersection of Red Rock Road and Hwy 72 and Red Rock Road and Cherry Lane. This proposed design will deploy single mode fiber optic cables constructed utilizing RUS approved construction techniques. All the fiber will be buried and placed in existing previously disturbed public rights-of-ways. To provide a more secure reliable fiber footprint all the buried fiber will be placed at a minimum depth of 36 inches unless other depths are

required by the affected highway, railroad, municipalities or other authorities. The two methods of buried construction that will be utilized are predominately plowing with directional boring utilized when road or stream or other types of crossings are required. Directional boring will also be utilized when it is not possible to plow or boring is more feasible construction. Along the buried fiber route, flush-mounted handholes will be deployed with the proposed fiber being accessible at each location. This will allow for easy access to the network and makes future expansions more economical and feasible.

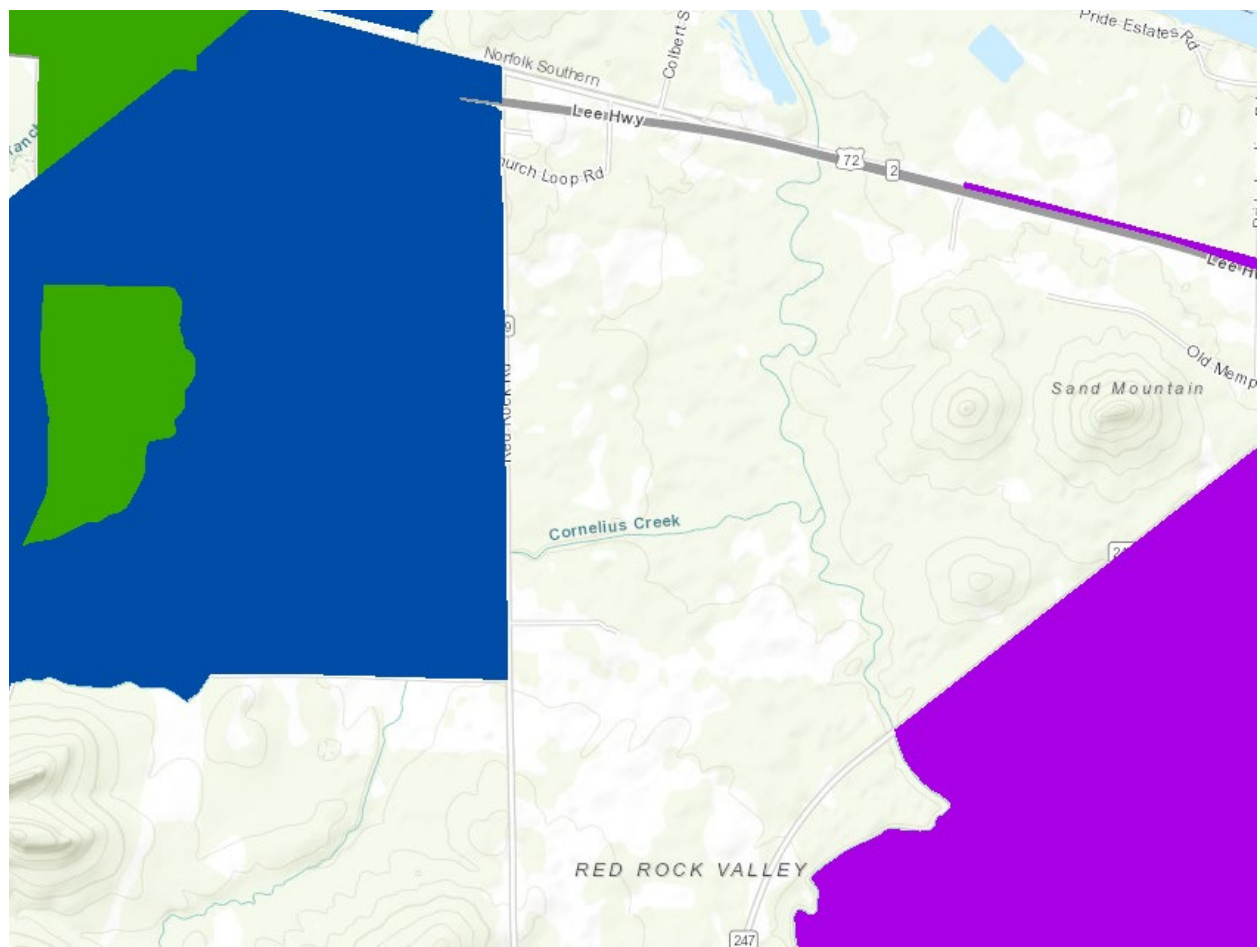
OSP contractors will complete RUS bidder qualification forms and be cleared by engineering to have experience with RUS standards of construction and will construct the middle mile construction. All activity will be supervised by resident engineers and inspectors from Joseph D. Fail Engineering Company (JDFEC), a licensed engineer, a member of ACE, with over 50 years of experience with RUS projects. JDFEC has also reviewed the network diagram and system plan and approved the project.

At the completion of middle mile construction, NTA technicians will install the OLT in the Barton Central Office. The service will be marketed during the middle mile construction and as the service is sold, local outside plant employees will bury the last mile fiber and install the CPE to turn up the customers. The estimated number of establishments to be served following the middle mile fiber build is estimated based on the internet take rate average in rural America, which is 63% per the study released by Pew research' "Digital gap between rural and nonrural America persists", published May 19, 2017. Per the RUS mapping tool, the establishments passed will be 124 and using a 63% take rate will calculate to be 76. Every household and business within the PFSA will be offered broadband service at the Broadband Grant Speed of 25/3 or more when the system is complete. The distribution fiber build has been carefully planned to follow the county roads to cover all existing locations and two handholes have been planned every mile with slack fiber to allow for future growth. The distributed splitters ensure the fiber scalability for growth or expansion as needed.

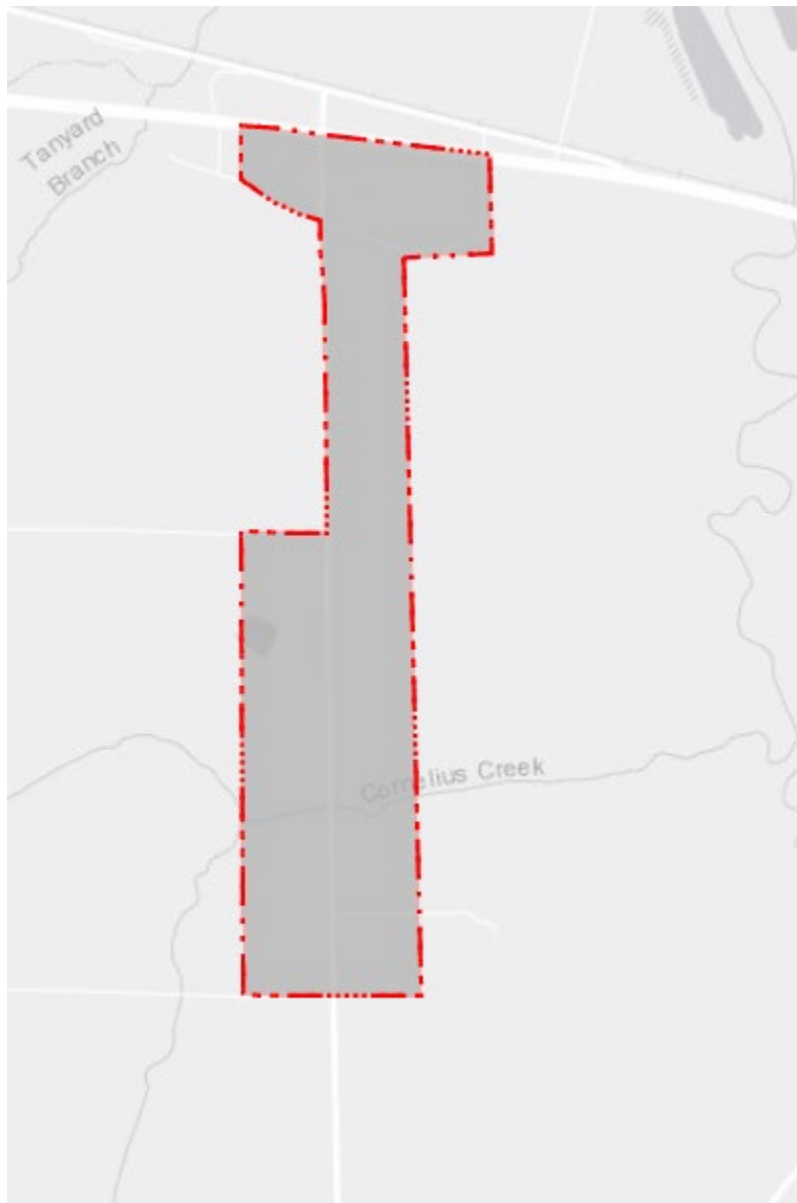
The Red Rock Community Project will not require upgrades to the existing network but will be an extension of that network utilizing the FTTH network design. Voice service will be offered within the NTA certificated area and up to Gigabit broadband service will be offered to the entire PFSA.

The PFSA will be built for up to a Gigabit offering and will not be oversubscribed at all based on the minimum required offering of 25.0/3.0 per user. Standard GPON technology will have virtually no link loss. All systems will maintain a redundant failover to maintain a high state of system availability.

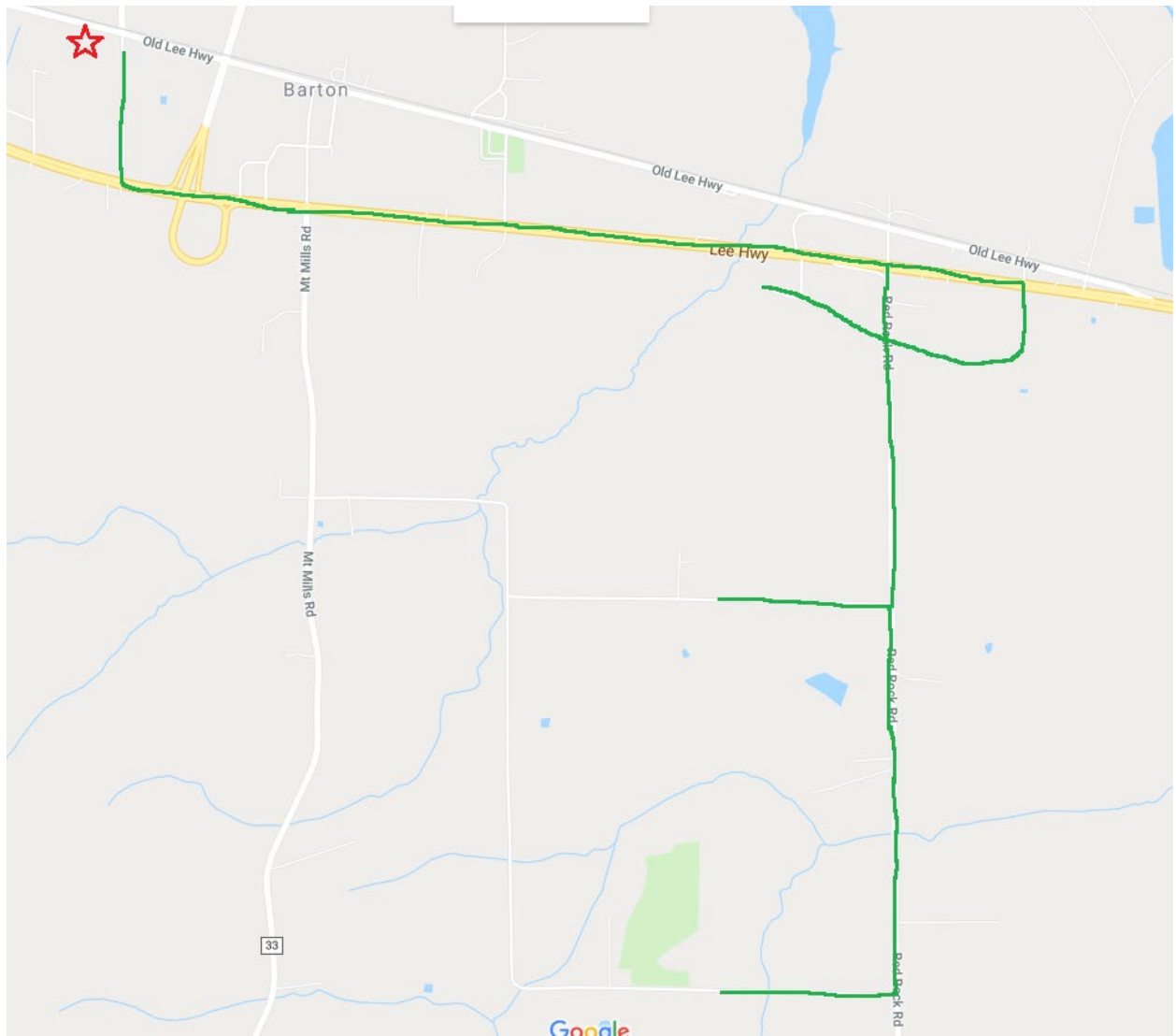
ADECA Broadband Map Reflecting Unserved Areas in Alabama (Red Rock Area)



Proposed Project Shape File



Fiber route on google earth map



Professional Engineer Certification

I the undersigned, certify that the proposed project will work as described in the foregoing Preliminary Technical Evaluation, and can deliver the proposed services outlined in the Application to all premises in the proposed service area(s). The project cost estimate and schedule are typical and customary for the proposed service area(s). Moreover, the proposed system can meet the proposed timeline and major project milestones and can be completed within two years.

10/4/18

(Date)



(Certifying Engineer's Signature)

George H. Wyatt, Jr.

Name (Printed)

President & Chief Executive Officer

Title

Palmetto Engineering & Consulting

Company

Registration Number: 30328

State of Registration: AL

Attachment B

Project name: Red Rock Community Broadband Project

Legal name of entity: National Telephone of Alabama, Inc.

Mailing address: 236 East Capitol St, Jackson, MS 39201

Name and title of CEO: James Garner, Vice President of Operations

Grant Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone: 601-354-9070 Email: LisaW@TEC.com

Project Budget

1. Explanation of Total Project Costs: The total infrastructure cost for the proposed Red Rock Community Broadband Project is \$447,822. The infrastructure is proposed to be funded through the use of funds from the Alabama Broadband Accessibility Fund in the amount of \$89,564.40 and NTA cash reserves in the amount of \$358,257.60. NTA will fund continuing operating expenditures from internal working capital available funds. An itemized schedule of eligible project expenses is attached in the file marked Attachment B-1.

2. Financial Information and Sustainability:

a. The Red Rock Community Broadband Project is an upgrade and extension of NTA's existing broadband services and outside plant connectivity to reach the unserved and underserved locations in the north central portion of Colbert County, AL that cannot feasibly be reached without grant funding or other opportunities. NTA will fund continuing operating expenditures from internal working capital available funds and utilize economies of scale to maintain an overall company positive cash flow. A project budget and the financial assumptions used to complete a five-year projection starting with our audited 2017 financial statements is attached in Attachment B-1 and B-2. Additionally, the 2016 and 2017 audited financial statements and the five-year financial projections are available upon request.

b. NTA will provide an 80% match in cash to build the project with a 20% grant award from the Alabama Broadband Accessibility Fund, as evidenced by the letter attached. NTA and TEC Services, Inc. are both wholly owned subsidiaries of TEC. NTA and its' sister companies participate in a consolidated cash management arrangement with Regions Bank. The account is listed under the name TEC Services, Inc. however, each affiliate company has access to and can write checks directly from this account up to its' share of the cash. A letter detailing and confirming the amount available to NTA is attached in B-3 and a copy of the bank statement is available upon request. In addition to this 80% cash match, NTA will be providing free internet service by an outdoor wireless access point at the Red Rock Storm Shelter location inside the PFSA for 24 months, which is valued at \$1,228.80. This free access will be provided to public

safety entities for emergencies and to bridge the gap for their communication support due to the spotty coverage of cellular service in this area.

3. Accomplishing Project Deliverables. TEC has been meeting the communication needs of the rural south since 1923. National Telephone of Alabama, Inc. (NTA) is a wholly-owned subsidiary of TEC and has provided voice service since 1968 and internet service since 1995. Currently, NTA serves broadband to over 782 locations in Colbert County, AL and has made broadband available to over 90% of the 300 square miles of the incumbent ILEC service area. With NTA's highly skilled and experienced customer care and technical staff of 6 employees located in Cherokee, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office and network operations center (NOC) located in Jackson, MS for design and construction of fiber plant and maintenance of the network.

National Telephone of Alabama, Inc. (NTA) management team has a combined total of over 200 years of experience in the telecommunications industry. The team working to secure and proceed with this project consists of Mr. Joseph Fail, Mr. Joe Piro, Mr. James Garner, Mrs. Joey Garner, Ms. Lisa Wigington, Mr. Brent Fisher, Mr. Forrest Collier, Mr. Troy Rutland as well other experienced managers and staff. The majority of these team members average over twenty years of experience working with NTA and its sister companies. This is basically the same core management team that was awarded the BIP project by RUS at National Telephone of Alabama, Inc. which was successfully completed on budget and on time.

Mr. Garner is leading the effort to reach more rural customers in Colbert County. As Vice President of operations for TEC, Mr. Garner works with NTA and sister companies on a daily basis to ensure that all projects are completed and goals are fulfilled. He works closely with the management team of Lisa Wigington, Forrest Collier and Brent Fisher to make sure the network is at full capacity to serve NTA customers. Mr. Garner, Ms. Wigington, Mr. Fisher and Mr. Collier currently meet weekly to coordinate all outside plant and central office functions at NTA. The team plans to continue this type of planning session with the direct focus on the Red Rock Community Broadband Project if our application is approved.

Within the realm of the proposed funded service area, NTA plans to follow similar steps that currently are followed for new technology and product offerings. Under the leadership of Mr. Garner, the operations department introduces new technologies for NTA and sister companies. Ms. Wigington and Mrs. Garner review the offerings and suggest new product packages and pricing. Once the new products are approved by Mr. Garner, the experienced staff of Mr. Collier and local staff will assist with the implementation in Colbert County. All aspects of a new product are reviewed and discussed by the team working on this project. These aspects include cost, revenue, billing, network management, implementation, training, and marketing. Each

team member has special talents that combine with others to insure every detail is covered thoroughly and diligently.

TEC and Joseph D. Fail Engineering Company (JDFEC) have planned and executed hundreds of cable plant infrastructure construction projects over the years. Outside Plant (OSP) contractors will complete Rural Utilities Service (RUS) bidder qualification forms and be cleared by engineering to have experience with RUS standards of construction. All activity will be supervised by resident engineers and inspectors from Joseph D. Fail Engineering Company (JDFEC), a licensed engineer, a member of ACE, with over 50 years of experience with RUS projects. JDFEC has also reviewed the network diagram and system plan and approved the project.

At the completion of distribution construction, the contractor will set the pole mounted distributed splitters and NTA technicians will install the OLT in the Barton remote. The service will be marketed during the fiber distribution construction and as the service is sold, local outside plant employees and the contractor will bury the drop fiber and OSP employees will install the CPE to turn up the customers. The estimated number of establishments to be served following the fiber distribution build is estimated based on the internet take rate average in rural America, which is 63% per the study released by Pew research' "Digital gap between rural and nonrural America persists", published May 19, 2017. Per the RUS mapping tool, the establishments passed will be 124 and 63% take rate will calculate to be 76. Every household and business within the PFSA will be offered broadband service at the speed of download 50 Mbps and an upload of 5 Mbps or above when the system is complete within the two-year timeframe from award acceptance to completion. The fiber distribution build has been carefully planned to follow the county roads to cover all existing locations and a minimum of one handhole has been planned every mile with slack fiber to allow for future growth.

Attached is Attachment B-1 with the construction build-out schedule and project milestones on a quarterly basis. Also attached included in the file is a detailed budget of all projected expenditures related to Red Rock Community Broadband Project.

4. Federal Funding. National Telephone of Alabama, Inc. is one of about 200 rural rate-of-return carriers that have committed to building out broadband service at specific speeds to a particular number of locations, based on the alternative Connect America model (A-CAM). NTA's current build-out requirements call for upgrading service to homes that cannot get broadband today or can only get low-speed broadband. In the TEC companies in Alabama, 73% of the A-CAM funded census blocks and locations must be served 25/3, 24% served 10/1, 2% served 4/1 and 2% would fall under the reasonable request standard at the end of 10 years (beginning in 2017). Calculating the number of locations with ACAM funding and the amount per location, total A-CAM support over 5 years for this proposed area would make up less than

8% of the total project cost. Per research, only 16 of the 124 locations are ACAM funded. The Red Rock community in this remote area will not be upgraded to 25/3 without additional resources like the grant funding included in this application. Additional information can be provided upon request.

**National Telephone of Alabama, Inc.
Red Rock Community Broadband Project**

federal universal service funding programs
...in an amount not exceeding fifty percent of
the total project cost

Total Project	50% of total project
\$447,822	\$223,911

shall not exceed 40% of total grant funding

Total Federal A- CAM Funding per eligible locations for 5 years	40% Of Total Grant
32,943	\$13,177

with such grants not exceeding 20% of total
project costs

Total Project	20% of Total Project
\$447,822	\$89,564

Final Budget

\$32,943	Federal A-CAM
\$89,564	Alabama Grant
<u>\$325,315</u>	Non-Grant Funds
\$447,822	Total Project

National Telephone of Alabama, Inc.
Red Rock Community Project

Attachment B-1

**Construction Build-out
And
Project Milestones**

Project Objectives and Activities	Year 1 - 2019				Year 2 - 2020			
	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Award notification by Jan 20, 2019	X							
Staking and Engineering Design by JDFEC Engineering Company	X							
NTA orders Splitters, OLT and other materials and JDFEC Engineering completes Contract with Contractor		X						
Contractor - Direct bury and/or Bore Fiber Distribution			X	X				
NTA runs a marketing campaign "fiber is coming to Red Rock"			X	X				
Testing (JDFEC and RTC)				X				
NTA buries fiber drops and installs CPE for locations subscribing to service				X	X	X	X	X
Project Complete								

National Telephone of Alabama, Inc.

Attachment B-1

Red Rock Community Project

Project Budget

BUDGET	No. of Units	Unit cost	Total	Grant	Other Funding	Description
<u>BROADBAND SYSTEM</u>						Note: These items are general in nature, applicants should modify as required to describe their specific project.
Electronic Equipment (FTTH, wireless, etc.) LCP cabinet	0	8000	0.00	0.00	0.00	288 port LCP Cabinet mounted on a concrete pad and fiber tails with connectors (includes estimate for land lease or purchase)
Electronic Equipment (FTTH, wireless, etc.) OLT for the Remote	1	5000	5,000.00	1,000.00	4,000.00	Optical Line Terminal (OLT) for Remote
Electronic Equipment (FTTH, wireless, etc.) Splitter cabinets	2	750	1,500.00	300.00	1,200.00	Pole mounted 1:32 Distributed Splitters
Outside plant (fiber, coaxial, copper, etc.) - Distribution fiber	6.9	\$42,400	292,560.00	58,512.00	234,048.00	Proposing 2.8 miles of 144 count buried fiber and 4.1 miles of 96 count buried fiber (unit cost includes fiber, fiber pedestals, and handholes with slack fiber and cost of contractor for direct bury or boring as needed) Note this is price per mile also includes a rock contingency in the bury/bore price due to the likelihood of rock in the area.
Customer premises equipment	76	\$500	38,000.00	7,600.00	30,400.00	CPE includes an Optical Network Terminal (ONT), Fiber Network Interface Device (NID) and Uninterrupted Power Source (UPS)
Outside plant (fiber, coaxial, copper, etc.) - Fiber drops	76	\$688	52,250.00	10,450.00	41,800.00	Fiber drops assumes an average of 550 feet from the road to the home to the Fiber NID and the ONT and UPS will be mounted (fiber drop and labor price)
Engineering			58,512.00	11,702.40	46,809.60	Includes staking, right-of-way permits, contractor negotiation, onsite resident engineer for project, cut sheets and testing
Total Broadband System			447,822.00	89,564.40	358,257.60	
TOTAL			447,822.00	89,564.40	358,257.60	

20.00%

80.00%

National Telephone of Alabama, Inc.

Red Rock Community Project

			Total Assets by Year				Grant				Company Funded				
Grant	Part 32 Acct No.	Account Desc	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	
#DIV/0!	223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00%	223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	5,000.00	5,000.00	5,000.00	5,000.00	1,000.00	1,000.00	1,000.00	1,000.00	4,000.00	4,000.00	4,000.00	4,000.00	5,000.00
20.00%	242300-6048	BURIED CABLE-NONMETALLIC	1,500.00	1,500.00	1,500.00	1,500.00	300.00	300.00	300.00	300.00	1,200.00	1,200.00	1,200.00	1,200.00	1,500.00
20.00%	242300-6048	BURIED CABLE-NONMETALLIC	292,560.00	292,560.00	292,560.00	292,560.00	58,512.00	58,512.00	58,512.00	58,512.00	234,048.00	234,048.00	234,048.00	234,048.00	292,560.00
20.00%	223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	11,739.84	38,000.00	38,000.00	38,000.00	8,321.50	7,600.00	7,600.00	7,600.00	3,418.34	30,400.00	30,400.00	30,400.00	11,739.84
20.00%	242300-6048	BURIED CABLE-NONMETALLIC	12,057.69	52,250.00	52,250.00	52,250.00	2,412.00	10,450.00	10,450.00	10,450.00	9,645.69	41,800.00	41,800.00	41,800.00	12,057.69
20.00%	223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	978.00	978.00	978.00	978.00	195.60	195.60	195.60	195.60	782.40	782.40	782.40	782.40	978.00
20.00%	242300-6048	BURIED CABLE-NONMETALLIC	57,534.00	57,534.00	57,534.00	57,534.00	11,506.80	11,506.80	11,506.80	11,506.80	46,027.20	46,027.20	46,027.20	46,027.20	57,534.00
			Total				Grant				Company Funded				
		Circuit Equipment	17,717.84	43,978.00	43,978.00	43,978.00	9,517.10	8,795.60	8,795.60	8,795.60	8,200.74	35,182.40	35,182.40	35,182.40	17,717.84
		Buried Cable	<u>363,651.69</u>	<u>403,844.00</u>	<u>403,844.00</u>	<u>403,844.00</u>	<u>72,730.80</u>	<u>80,768.80</u>	<u>80,768.80</u>	<u>80,768.80</u>	<u>290,920.89</u>	<u>323,075.20</u>	<u>323,075.20</u>	<u>323,075.20</u>	<u>363,651.69</u>
		Total	<u>381,369.53</u>	<u>447,822.00</u>	<u>447,822.00</u>	<u>447,822.00</u>	<u>82,247.90</u>	<u>89,564.40</u>	<u>89,564.40</u>	<u>89,564.40</u>	<u>299,121.63</u>	<u>358,257.60</u>	<u>358,257.60</u>	<u>358,257.60</u>	<u>381,369.53</u>
8.33% Depr		Circuit Equipment	738.00	3,663.00	3,663.00	3,663.00	396.00	733.00	733.00	733.00	342.00	2,931.00	2,931.00	2,931.00	738.00
4.00% Depr		Buried Cable	<u>7,273.00</u>	<u>16,154.00</u>	<u>16,154.00</u>	<u>16,154.00</u>	<u>1,455.00</u>	<u>3,231.00</u>	<u>3,231.00</u>	<u>3,231.00</u>	<u>5,818.00</u>	<u>12,924.00</u>	<u>12,924.00</u>	<u>12,924.00</u>	<u>7,273.00</u>
		Total	<u>8,011.00</u>	<u>19,817.00</u>	<u>19,817.00</u>	<u>19,817.00</u>	<u>1,851.00</u>	<u>3,964.00</u>	<u>3,964.00</u>	<u>3,964.00</u>	<u>6,160.00</u>	<u>15,855.00</u>	<u>15,855.00</u>	<u>15,855.00</u>	<u>8,011.00</u>
A/D		Circuit Equipment	738.00	4,401.00	8,064.00	11,727.00	396.00	1,129.00	1,862.00	2,595.00	342.00	3,273.00	6,204.00	9,135.00	738.00
A/D		Buried Cable	<u>7,273.00</u>	<u>23,427.00</u>	<u>39,581.00</u>	<u>55,735.00</u>	<u>1,455.00</u>	<u>4,686.00</u>	<u>7,917.00</u>	<u>11,148.00</u>	<u>5,818.00</u>	<u>18,742.00</u>	<u>31,666.00</u>	<u>44,590.00</u>	<u>7,273.00</u>
		Total	<u>8,011.00</u>	<u>27,828.00</u>	<u>47,645.00</u>	<u>67,462.00</u>	<u>1,851.00</u>	<u>5,815.00</u>	<u>9,779.00</u>	<u>13,743.00</u>	<u>6,160.00</u>	<u>22,015.00</u>	<u>37,870.00</u>	<u>53,725.00</u>	<u>8,011.00</u>

Check Total

0.00	0.00	0.00
5,000.00	5,000.00	5,000.00
1,500.00	1,500.00	1,500.00
292,560.00	292,560.00	292,560.00
38,000.00	38,000.00	38,000.00
52,250.00	52,250.00	52,250.00
978.00	978.00	978.00
57,534.00	57,534.00	57,534.00

Check Total

43,978.00	43,978.00	43,978.00
<u>403,844.00</u>	<u>403,844.00</u>	<u>403,844.00</u>
<u>447,822.00</u>	<u>447,822.00</u>	<u>447,822.00</u>
3,664.00	3,664.00	3,664.00
<u>16,155.00</u>	<u>16,155.00</u>	<u>16,155.00</u>
<u>19,819.00</u>	<u>19,819.00</u>	<u>19,819.00</u>
4,402.00	8,066.00	11,730.00
<u>23,428.00</u>	<u>39,583.00</u>	<u>55,738.00</u>
<u>27,830.00</u>	<u>47,649.00</u>	<u>67,468.00</u>

**National Telephone of Alabama, Inc.
Red Rock Community Broadband Project
Financial Forecast Assumptions**

Attachment B-2

Network Services Revenues:	Assumption:
Local Voice Service	Voice service revenues are trending down historically and it is projected to continue at a 4% decline over the next five years.
Broadband Data Service	Broadband data service has historically been increasing and it is projected to continue this trend at 3.5%, in addition to the expected increase of customers related to the PFSA. NTA will be offering broadband data service at speeds of 50 Mbps downstream/5 Mbps upstream, at a rate of \$39.95 bundled with voice or as a standalone service for the first 12 month promotional period and then at a retail rate of \$59.95. Based on the interest from community leaders and homeowners in this community (and a research study by PEW Research Center on Rural Broadband Take Rates), the company has projected that the PFSA for the community connect project will have a 63% penetration rate by the end of year 2 of the project. NTA's current take rate is lower than this due to direct competition from a cable company within the city limits that only serves the denser portion of the service area. The cable company does not serve the area proposed for the grant funding. The company is projecting 24 new customers in year 1 and 50 new customers in year 2, and an additional 10 customers per year for years 4 and 5 from the PFSA. See calculations attached
Video Service	N/A
Middle Mile Revenues	N/A
Network Access Service Revenues	Network access revenues will continue to trend down at an estimated rate of 5% per year for the next 5 years. Though this is highly dependent on the rates issued by NECA, which are averaged by participation in the pool.
Universal Service Fund	The Universal Service Fund will remain constant over the next 5 years, with the company's participation in ACAM. The FCC revised the ACAM in 2018, retroactive to 2017, with an additional \$100,611 in 2018 and \$670,737 of funding per year for 2019 through 2027.
Toll Service/Long Distance Voice	Toll service and long distance will remain constant over the next 5 years per the current trend.
Installation Revenues	Installation revenues will remain constant over the next 5 years per the current trend.
Amortized Grant Revenues	
Other Operating Revenues	Other operating revenues will remain constant over the next 5 years per the current trend.
Uncollectible Revenues	Uncollectible revenues will remain constant over the next 5 years per the current trend.
Total Revenues	
EXPENSES	
Backhaul	
IP/Interconnection	IP/Interconnection expenses have historically decreased as the company buys bandwidth in bulk with the other TEC affiliates, it reaches an economy of scale and bandwidth becomes cheaper, than if the company was buying it alone. Recently our transport and bandwidth have been renegotiated by the parent company and while increasing the bandwidth and the redundancy, the price was dramatically decreased. With this in mind and the fact that we have excess capacity now, we are projecting that this expense will remain constant over the projected period although we anticipate the amount of bandwidth consumed by the company will increase.
Video Content If Applicable	N/A
Spectrum If Applicable	N/A
Network Maintenance/Monitoring	Network Maintenance/Monitoring will remain constant, in that RTC and TEC does not anticipate hiring additional personnel and that the PFSA can be fully supported by the current employees.
Utilities	Utility expense will remain constant. Additional equipment will not increase utilities and community center will be donated space in a building owned by a community business.
Sales/Marketing	Sales/Marketing will remain constant. A portion of the current marketing budget will be directed toward the PFSA and Digital Literacy campaign.
Customer Care	Customer Care expense will remain constant, in that RTC and TEC does not anticipate hiring additional personnel and that the PFSA can be fully supported by the current employees.
Corporate G&A	Corporate G&A expense will remain constant, in that RTC and TEC does not anticipate hiring additional personnel and that the PFSA can be fully supported by the current employees.
Property Tax	Property tax expense will remain constant, in that the additional infrastructure will be a negligible increase in the assessment for property tax.
Other Operating Expense	Other Operating Expense will remain constant.
Total Expenses	
Net Operating Income	
Interest Income	N/A
Other Non-Operating Income (Expense)	Other Non-Operating Income (Expense) will remain constant. Made up of interest expense-customer deposits, gain and loss on sale of assets, prior year write-offs, lobbying, membership dues, scholarships, and charitable contributions
EBITDA	
Depreciation - Community Connect Project Assets	Depreciation - Five Points Community Project Assets were calculated using a Depreciation rate of 8.33% for Electronic Circuit Equipment and 4% for Outside Plant Cable, Alabama PSC approved depreciation rates
Depreciation - Other Assets	Depreciation schedules were run for the projected 5 years, with the current undepreciated assets, using the PSC approved depreciation rates.
Amortization	
Interest Expense - Existing Debt	
Interest Expense - New Debt	
Income Taxes	Income taxes were estimated using a 26% rate on all projected revenues.
Net Income (Loss)	

**National Telephone of Alabama, Inc.
Red Rock Community Broadband Project
Financial Forecast Assumptions**

[illegible]

Fractional Year at Regular Rates					Full Yr.	
Revenue					Revenue	

<u>1St</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>Total</u>	<u>Regular</u>	<u>Total</u>
0	0	0	2,158	2,158		1,438
						24,450
5,453	5,845	3,237	1,079	15,615	17,266	47,262
1,258	1,349	540	180	3,327	53,236	61,356

National Telephone of Alabama, Inc.
Red Rock Community Broadband Project
Financial Forecast Assumptions

ASSETS*Current Assets*

Cash	Assumption: Cash balance used in the operations of the company
Marketable Securities	N/A
Accounts Receivable	Accounts Receivable will remain constant over the next 5 years per the current trend
Other Current Assets	Accounts Receivable will remain constant over the next 5 years per the current trend

Total Current Assets*Non-Current Assets*

Amortizable Asset - Net	N/A
Plant in Service - Community Connect Project Assets	Plant in Service - The Red Rock Community Broadband Project Assets were calculated using the uniform system of accounts for the regulated Telecom Industry which require that the plant accounts be reduced by the grant funds received in the year of receipt, so only the 80% match portion of the plant was recorded. Total Plant in Service - Red Rock Community Project Assets per books will be Total Project Cost \$447,822.00 Less Grant \$89,564.40 for a total of \$358,257.60. The breakdown of the cost per books is Electronic Circuit Equipment \$35,182.40 and Outside Plant Cable \$323,075.20. Engineering includes staking, right-of-way permits, contracting negotiations, onsite resident engineer for project, cut sheets and testing for LCP cabinet and middle mile buried fiber. The engineering costs were allocated to Electronic and Outside Plant based on the percentages of OLT Electronics total cost and the Outside Plant fiber distribution total cost.
Accumulated Depreciation - Community Connect Project Assets	Accumulated Depreciation - The Five Points Community Project Assets were calculated using a Depreciation rate of 8.33% for Electronic Circuit Equipment and 4% for Outside Plant Cable, Alabama PSC approved rates.
Plant in Service - Other Assets	Plant in Service - Other Assets additions and retirements were based on a 5 year projected Capital Budget.
Accumulated Depreciation - Other Assets	Accumulated Depreciation - Other Assets are based on schedules for the projected 5 year Capital Budget.
Other Non-Current Assets	Other Non-Current Assets will remain constant over the next 5 years per the current trend.

Total Non-Current Assets**Total Assets****LIABILITIES AND EQUITY***Current Liabilities*

Accounts Payable	Accounts Payable will remain constant over the next 5 years per the current trend
Current Portion - Existing Debt	N/A
Current Portion - New Debt	N/A
Current Portion - Deferred Grant Revenue	N/A
Other Current Liabilities	Other Non-Current Assets will remain constant over the next 5 years per the current trend.

Total Current Liabilities*Non-Current Liabilities*

Existing Debt	N/A
New Debt	New Debt - Company will fund the 80% match for the Five Points Community Broadband Project and all other planned capital expenditures from cash reserves and incoming revenue. There will not be additional debt.
Deferred Grant Revenue	N/A
Other Non-Current Liabilities	Other Non-Current Liabilities will remain constant over the next 5 years per the current trend.

Total Non-Current Liabilities**Total Liabilities***Equity*

Capital Stock	Capital Stock will remain constant over the next 5 years per the current trend
Additional Paid-In Capital	N/A
Patronage Capital Credits	N/A
Retained Earnings	Retained Earnings will Increase due to Net Income assuming no Common Stock Dividends.

Total Equity**Total Liabilities and Equity**

Roanoke Telephone Company, Inc.
Red Rock Community Broadband Project
Financial Forecast Assumptions

<u>Grant</u>	<u>Part 32 Acct No.</u>	<u>Account Desc</u>	<u>Total Assets by Year</u>				<u>Grant</u>		
			<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
#DIV/0!	223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	5,000.00	5,000.00	5,000.00	5,000.00	1,000.00	1,000.00	1,000.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	1,500.00	1,500.00	1,500.00	1,500.00	300.00	300.00	300.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	292,560.00	292,560.00	292,560.00	292,560.00	58,512.00	58,512.00	58,512.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	11,739.84	38,000.00	38,000.00	38,000.00	8,321.50	7,600.00	7,600.00
	20% 242300-6048	BURIED CABLE-NONMETALLIC	12,057.69	52,250.00	52,250.00	52,250.00	2,412.00	10,450.00	10,450.00
	20% 223210-6036	CIRCUIT EQ-SUBSCR-DIGITAL	978.00	978.00	978.00	978.00	195.60	195.60	195.60
	20% 242300-6048	BURIED CABLE-NONMETALLIC	57,534.00	57,534.00	57,534.00	57,534.00	11,506.80	11,506.80	11,506.80

		<u>Total</u>				<u>Grant</u>		
	Circuit Equipment	17,717.84	43,978.00	43,978.00	43,978.00	9,517.10	8,795.60	8,795.60
	Buried Cable	<u>363,651.69</u>	<u>403,844.00</u>	<u>403,844.00</u>	<u>403,844.00</u>	<u>72,730.80</u>	<u>80,768.80</u>	<u>80,768.80</u>
	Total	<u>381,369.53</u>	<u>447,822.00</u>	<u>447,822.00</u>	<u>447,822.00</u>	<u>82,247.90</u>	<u>89,564.40</u>	<u>89,564.40</u>
8.33% Depr	Circuit Equipment	738.00	3,663.00	3,663.00	3,663.00	396.00	733.00	733.00
4.00% Depr	Buried Cable	<u>7,273.00</u>	<u>16,154.00</u>	<u>16,154.00</u>	<u>16,154.00</u>	<u>1,455.00</u>	<u>3,231.00</u>	<u>3,231.00</u>
	Total	<u>8,011.00</u>	<u>19,817.00</u>	<u>19,817.00</u>	<u>19,817.00</u>	<u>1,851.00</u>	<u>3,964.00</u>	<u>3,964.00</u>
A/D	Circuit Equipment	738.00	4,401.00	8,064.00	11,727.00	396.00	1,129.00	1,862.00
A/D	Buried Cable	<u>7,273.00</u>	<u>23,427.00</u>	<u>39,581.00</u>	<u>55,735.00</u>	<u>1,455.00</u>	<u>4,686.00</u>	<u>7,917.00</u>
	Total	<u>8,011.00</u>	<u>27,828.00</u>	<u>47,645.00</u>	<u>67,462.00</u>	<u>1,851.00</u>	<u>5,815.00</u>	<u>9,779.00</u>

	Company Funded					Check Total			
<u>2022</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>					
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	4,000.00	4,000.00	4,000.00	4,000.00	5,000.00	5,000.00	5,000.00	5,000.00	
300.00	1,200.00	1,200.00	1,200.00	1,200.00	1,500.00	1,500.00	1,500.00	1,500.00	
58,512.00	234,048.00	234,048.00	234,048.00	234,048.00	292,560.00	292,560.00	292,560.00	292,560.00	
7,600.00	3,418.34	30,400.00	30,400.00	30,400.00	11,739.84	38,000.00	38,000.00	38,000.00	
10,450.00	9,645.69	41,800.00	41,800.00	41,800.00	12,057.69	52,250.00	52,250.00	52,250.00	
195.60	782.40	782.40	782.40	782.40	978.00	978.00	978.00	978.00	
11,506.80	46,027.20	46,027.20	46,027.20	46,027.20	57,534.00	57,534.00	57,534.00	57,534.00	

	Company Funded				Check Total			
8,795.60	8,200.74	35,182.40	35,182.40	35,182.40	17,717.84	43,978.00	43,978.00	43,978.00
<u>80,768.80</u>	<u>290,920.89</u>	<u>323,075.20</u>	<u>323,075.20</u>	<u>323,075.20</u>	<u>363,651.69</u>	<u>403,844.00</u>	<u>403,844.00</u>	<u>403,844.00</u>
<u>89,564.40</u>	<u>299,121.63</u>	<u>358,257.60</u>	<u>358,257.60</u>	<u>358,257.60</u>	<u>381,369.53</u>	<u>447,822.00</u>	<u>447,822.00</u>	<u>447,822.00</u>
733.00	342.00	2,931.00	2,931.00	2,931.00	738.00	3,664.00	3,664.00	3,664.00
<u>3,231.00</u>	<u>5,818.00</u>	<u>12,924.00</u>	<u>12,924.00</u>	<u>12,924.00</u>	<u>7,273.00</u>	<u>16,155.00</u>	<u>16,155.00</u>	<u>16,155.00</u>
<u>3,964.00</u>	<u>6,160.00</u>	<u>15,855.00</u>	<u>15,855.00</u>	<u>15,855.00</u>	<u>8,011.00</u>	<u>19,819.00</u>	<u>19,819.00</u>	<u>19,819.00</u>
2,595.00	342.00	3,273.00	6,204.00	9,135.00	738.00	4,402.00	8,066.00	11,730.00
<u>11,148.00</u>	<u>5,818.00</u>	<u>18,742.00</u>	<u>31,666.00</u>	<u>44,590.00</u>	<u>7,273.00</u>	<u>23,428.00</u>	<u>39,583.00</u>	<u>55,738.00</u>
<u>13,743.00</u>	<u>6,160.00</u>	<u>22,015.00</u>	<u>37,870.00</u>	<u>53,725.00</u>	<u>8,011.00</u>	<u>27,830.00</u>	<u>47,649.00</u>	<u>67,468.00</u>



October 22, 2018

Alabama Broadband Accessibility Fund Grant Application
Post Office Box 5690
Montgomery, AL 36103-5690

Dear Sir or Madam:

National Telephone of Alabama, Inc. (NTA) participates in a consolidated cash management arrangement with other subsidiaries of TEC. The consolidated cash management arrangement is administered by TEC Services, Inc. (TEC Services) and the underlying cash investments are in the name of TEC Services. NTA's share of the consolidated cash management account as of September 30, 2018 amounts to \$747,868 of the \$5,758,201 total balance shown on the attached bank statement. NTA can issue checks and other payments of up to the \$747,868 interest it has in the attached account without any further action being taken. Accordingly, NTA has sufficient cash reserves to match up to \$360,000 for the Red Rock Community Broadband Project that has been submitted to ADECA for grant approval.

I am the Executive Vice President on both NTA and TEC Services and, therefore, have authority to authorize transactions on both companies. If you have any questions or need any additional information please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Joey F. Garner".

Joey F. Garner
Executive Vice President

Project name: Red Rock Community Broadband Project

Legal name of entity: National Telephone of Alabama. Inc.

Mailing address: 236 East Capitol St, Jackson, MS 39201

Name and title of CEO: James Garner, Vice President of Operations

Grant Contact: Lisa Wigington, Director of Revenue Assurance & Regulatory Compliance

Phone: 601-354-9070 Email: LisaW@TEC.com

Other Program Priorities:

1. Does this project seek to leverage grant funds through private investment?

- a. YES – The Red Rock Community Broadband Project is an extension of NTA's existing broadband services and outside plant infrastructure to reach the unserved and underserved locations in rural Colbert county, AL that cannot feasibly be reached without grant funding or other opportunities. NTA will provide an 80% match in cash to build the project with a 20% grant award from the Alabama Broadband Accessibility Fund, as evidenced by the letter attached detailing and confirming the amount available to NTA in Attachment B-3 and a copy of the bank statement is available upon request.

2. Will this project be an extension of existing infrastructure?

- a. YES - TEC has been meeting the communication needs of the rural south since 1923. National Telephone of Alabama. Inc. (NTA) is a wholly-owned subsidiary of TEC and has provided voice service since 1968 and internet service since 1995. Currently, NTA serves voice to 1,320 customers in its certificated area and internet service to 782 customers in Colbert county, AL and has made broadband available to over 90% of the 300 square miles of the incumbent ILEC service area. Currently, NTA passes approximately 3,114 locations with broadband service in Colbert county in Alabama. With NTA's highly skilled and experienced customer care and technical staff of 6 employees locally located in Cherokee, AL, the company is positioned to give superior service to customers and has the tier two support from the TEC corporate office located in Jackson, MS for design and construction of fiber plant and maintenance of the network. The equipment strategy for this expansion project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through designated distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Red

Rock Community Broadband Project will not require upgrades to the existing NTA network but will be an extension of that network and infrastructure utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10 Gbps or Point to Point 10 Gbps connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location. A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC. TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10 Gbps with streaming providers through Equinix utilizing CSpire for 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30 Gbps of 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 TEC's network's edge to our Internet peering locations is typically well below 20ms.

3. Does this project serve locations with demonstrated community support?

- a. YES – The Red Rock Community, as well as Colbert County have been tremendously supportive and showed great interest in this proposed grant project. Below is a summary matrix of the community leaders, schools, local government and economic development entities, safety entities and health care organizations who graciously sent letters of support (Attachment C-1 contains copies of the letters).

Community Support

Community Support	Contact Person	Type of Commitment
Colbert County Schools	Dr. Gale D. Satchel, Superintendent	Will participate in and support the digital literacy program planned for the library and school district. Also requests internet access for students living in the area to have broadband access from home to use their school issued devices for homework
Shoals Chamber of Commerce	Caitlin Holland, President	Will partner in and support the digital literacy program planned for the library and school district for online safety for children as well as the online training geared toward workforce readiness and economic growth
Colbert County Emergency Management Agency	Michael Melton, Director-Coordinator	Will participate in and support the Red Rock Community Broadband Project for additional first responder training and broadband access for communication during emergencies
Alabama House of Representatives	Representative Johnny Mack Morrow	Supports the Red Rock Community Broadband Project.
Cherokee Public Library	Alice Whitaker, Director	Will partner in and support the digital literacy program planned for the library and school district for online safety for children and workforce readiness and economic growth
Cherokee Family Clinic, LLC	Carol Davis	Supports the community broadband project and addresses the need for access to telemedicine in the area.
Cherokee Volunteer Fire Fighters, Inc.	Darrin Hogeland, Fire Chief	Will participate in and support the Red Rock Community Broadband Project for additional first responder training and broadband access for communication during emergencies
Town of Cherokee	Terry Cosby, Mayor	Will participate in and support the community broadband project and the free access at the Red Rock Storm Shelter to provide internet access to public safety entities during emergencies
Colbert County Commission	Charles Hovater, Chairman	Supports the Red Rock Community Broadband Project.
Alabama State Senate	Larry C Stutts, MD -- Alabama State Senator District 6	Supports the Red Rock Community Broadband Project.
17 home owners in the PFSA	Various	Signed letters of support and confirmation there is no broadband service available

4. Will this project serve the highest number of unserved homes, businesses, and community anchor points for the least cost?

- a. YES – The Red Rock Community Broadband project has been modeled based on an average per mile cost of other fiber projects constructed by TEC in this area and the project will be open to bid by qualifying OSP contractors, assuring a competitive rate per mile for construction of mainline or distribution fiber. This rate per mile also contains a rock contingency due to the risk of plowing and boring through rock. Local outside plant employees or the contractor will bury the drop fiber and install the CPE to turn up the customers. Part of this proposed service area is A-CAM funded, however, this project would still not make a business case without the additional grant funding.
- b. **Number of Households and Businesses Passed:** The Red Rock Community Broadband Project service area includes a total population of approximately 279. This area represents an estimated 124 locations in approximately 1 square mile per the RUS broadband mapping tool located at (<https://broadbandsearch.sc.egov.usda.gov/bsa>). Per NTA research there are multiple farms, and a critical community facility, which will be the Red Rock Storm Shelter, and the remaining locations are residential.
- c. **Number of Critical Community Facilities, Public Safety Entities, etc.:** The Red Rock Storm Shelter is both a critical community facility and a public safety entity and is located inside the PFSA. National Telephone of Alabama. Inc. will provide 24 months of free internet access to this facility open to public safety entities if the application is approved and the project is built for emergency communications and first responder training.
- d. **Does this project emphasize the highest broadband speeds?** YES – NTA will be able to serve Gigabit service to these customers. The equipment strategy for this expansion project is to leverage existing fiber to deploy a Gigabit Passive Optical Network (GPON) Fiber to the Home (FTTH) solution using the Adtran TA5000 platform. Customers served by a GPON connection will have a 2.4Gbps/1.2Gbps GPON connection from the Optical Network Terminal (ONT) at their home through distributed 1:32 optical splitters to the serving remote Optical Line Terminal (OLT). The Red Rock Community Broadband Project will not require upgrades to the existing NTA network but will be an extension of that network utilizing the FTTH network design described here.

This GPON capacity will easily scale to provide Gigabit service for these customers. However, if more bandwidth were to be required, NG-PON2 or XGS-PON at 10 Gbps or Point to Point 10 Gbps connections or higher could be deployed on an as-needed basis over the proposed Fiber optic cable. Latency within the proposed Adtran FTTH equipment ranges from microseconds to around 3-5ms, depending on location. A centralized network operations center (NOC) is located in Jackson, MS and operated by the parent company TEC.

TEC's Internet peering connections and routers are monitored by the NOC personnel and two upstream providers, Cogent and AT&T, to ensure redundancy and adequate bandwidth and IP addresses are available to our broadband customers. TEC also peers in Chicago, IL at 10 Gbps with streaming providers through Equinix utilizing CSpire 10 Gbps transport from the NOC to minimize streaming congestion on the network. In total, TEC has 30Gbps of 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 TEC's network's edge to our Internet peering locations is typically well below 20ms.

5. Will this project provide material broadband enhancements to hospitals located in rural areas as defined in Section 22-21-20, Code of Alabama 1975?

- a. YES – The Department of Veterans Affairs now has a telehealth service available from veterans at home if a broadband connection is available. There are many telehealth resources that are used to deliver care to a patient. However, VA's Video on Demand has been an important resource for providers and patients. Veterans don't need to be at a clinic to speak with their provider thanks to VA Video on Demand. Providers refer appropriate patients to participate in this program. This telehealth tool is a secure, web-enabled video service, connecting Veterans with their providers. www.va.gov VA » [Veterans Health Administration](#) » Telehealth Revolutionizing Veterans Health Care
- b. Many patients who live in rural areas will not have to travel as far to see their doctors thanks to the University of Alabama at Birmingham which is expanding its telehealth network. Access to health care is limited in many of the state's rural counties. Death rates from cardiovascular and oncologic illnesses, and diabetes are significantly higher for rural Alabamians than for those living in urban areas. The majority of Alabama's medical specialists are located in the state's larger cities; but a large percentage of the state's population lives outside those areas, making it difficult for them to receive care. While currently patients can go to the Alabama Department of Public Health county health departments to utilize this technology for their appointments. The time is near when these appointments will be done from the residence through an online portal.

6. 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 – National Telephone of Alabama. Inc., dba: TEC has created and launched a Digital Literacy Training plan and created an online learning portal, see Attachment C-2. NTA has reached out to the local community, including the Colbert County Schools, the Shoals Chamber of Commerce and the Cherokee Public Library to provide live classroom training for internet safety for children and parents, as well as, access to and training on how to use the TEC Digital Literacy Portal provided by TEC at <http://www.driveyourlearning.org/co/tec.html> as part of TEC's Roadmap to Improve Digital Literacy training plan (see comprehensive plan - Attachment C-2). TEC will be providing the presentations and a train the trainer program with the library and the schools.

Course categories consist of the titles below and more will be added:

- Internet and Computer Basics
 - Introduction to E-Mail
 - Introduction to the Internet
 - Evaluating Web Pages
 - Internet Safety
 - Microsoft Word 2010: Unit 1
 - Microsoft Word 2010: Unit 2
 - Computer Basics
 - Mouse Tutorial
 - Windows 8
 - Creating an Email account: Gmail
 - Starting on the Computer
 - DigitalLearn-Intro to Email
 - Using the Internet
 - Windows10
- Job Skills
 - Cover Letters
 - Networking Basics
 - Interviewing 101
 - Job Applications
 - Business Planning 101
 - Guide to Starting a Business
 - Small Business Cybersecurity
 - Resume Writing
- Social Media
 - Getting Started with Pinterest
 - Instagram Basics
 - Facebook 101

- Etsy 101
 - LinkedIn Basics
 - LinkedIn for Job Seekers
- Life Skills
 - Money Basics
 - Guide to Buying a Car
 - Guide to Buying a Home
 - Essentials of Nutrition
 - Guide to Starting a Business
 - Taxes 101
 - Business Planning 101
 - U.S. Citizenship Exam Prep
 - Credit 101
- General Education
 - SAT Math Preparations
 - The GED Test Tutorial
 - Selling on EBay
 - GMAT – Test Prep
 - Documentation (DAP skills)
- Basic Programming
 - Programming Fundamentals
 - Get Your Business Online
 - Introduction to HTML
 - Introduction to Ruby
 - JavaScript
 - jQuery
 - Introduction to CSS
 - PHP Basics
 - GESMV – Job Success

Attachment C-2 TEC Roadmap to Improve Digital Literacy

In an effort to provide resources to our communities to bridge the gap in the digital divide, TEC is launching a digital literacy plan. The plan will cover a series of steps that will help promote digital literacy in all age groups and will implement an assortment of training classes and workshops to close the gap. TEC realizes that the future brings more and more technological changes and to thrive in such times, one must be digitally literate. There is technology in every aspect of the professional world now whether it is applying for jobs or everyday job tasks. There will be a focus on internet literacy training to help prepare users entering the workforce and anyone wanting to improve their individual efficiency. Another very important topic in digital literacy is internet privacy. It is important to make our communities aware of the dangers of using the internet without a proper knowledge of what we are sharing. TEC's goal is to educate people of all ages on the endless possibilities of the internet.

Collaboration will play a key role in the success of the implementation of TEC's digital literacy plan. To execute, TEC must partner with community organizations. A list of suggested partners and contacts in each community is below:

- Superintendent from each school district
- Director of the local libraries
- Director of the local chamber of commerce
- Director of community centers, learning centers and senior centers
- Low income housing facilities

Part one of the plan is TEC's implementation of an internet safety program. Courses will be presented for different age groups in the schools of our communities. The courses will be taught by a member of the community sponsored by TEC and will cover internet safety for kids and adults. Students can gain a knowledge of the dangers of the internet and what can be done to stay safe and remain vigilant. The course for parents and other adult family members will also be available at the local library, community centers, learning centers and senior centers. Two identical CDs with these powerpoint presentations have been sent to each company, one for the company and one to share with the local person recruited to partner and teach the courses in the classrooms. A list of these courses is below:

- NetSmartz Kindergarten – 2nd grade
- NetSmartz 3rd grade – 5th grade
- NetSmartz Tweens
- NetSmartz Teens
- NetSmartz Parents

Part two of the plan is to place brochures in the local TEC office and in the local library on internet safety. These brochures are provided by the Federal Trade Commission and are listed below:

- Heads Up: Stop Think Connect
- Net Cetera: Chatting with Kids About Being Online
- Living Life Online

Part three of the plan is to provide a portal for classes to be offered to each community. Shortcut icons to access this website, <http://www.driveyourlearning.org/co/tec.html> will be added to all public accessible computers in the libraries, community centers, learning centers for the disabled and senior centers in our serving areas. Course categories consist of the titles below and more will be added:

- Internet and Computer Basics
 - Introduction to E-Mail
 - Introduction to the Internet
 - Evaluating Web Pages
 - Internet Safety
 - Microsoft Word 2010: Unit 1
 - Microsoft Word 2010: Unit 2
 - Computer Basics
 - Mouse Tutorial
 - Windows 8
 - Creating an Email account: Gmail
 - Starting on the Computer
 - DigitalLearn-Intro to Email
 - Using the Internet
 - Windows10
- Job Skills
 - Cover Letters
 - Networking Basics
 - Interviewing 101
 - Job Applications
 - Business Planning 101
 - Guide to Starting a Business
 - Small Business Cybersecurity
 - Resume Writing
- Social Media
 - Getting Started with Pinterest
 - Instagram Basics
 - Facebook 101
 - Etsy 101
 - LinkedIn Basics
- LinkedIn for Job Seekers
- Life Skills
 - Money Basics
 - Guide to Buying a Car
 - Guide to Buying a Home
 - Essentials of Nutrition
 - Guide to Starting a Business
 - Taxes 101
 - Business Planning 101
 - U.S. Citizenship Exam Prep
 - Credit 101
- General Education
 - SAT Math Preparations
 - The GED Test Tutorial
 - Selling on EBay
 - GMAT – Test Prep
 - Documentation (DAP skills)
- Basic Programming
 - Programming Fundamentals
 - Get Your Business Online
 - Introduction to HTML
 - Introduction to Ruby
 - JavaScript
 - jQuery
 - Introduction to CSS
 - PHP Basics
 - GESMV – Job Success

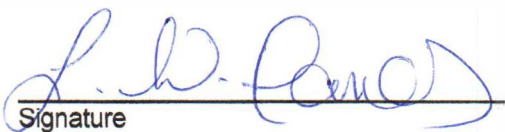
April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Lionel W. Jones
Name Printed

14370 Hwy 72
Address

Cherokee AL 35616

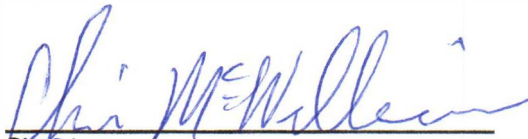
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Sincerely,



Signature



Name Printed



Address



April 23, 2018

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Sincerely,

Robert Barnes

Signature

Robert Barnes

Name Printed

2775 Red Rock Rd.

Address

Tusculum AL 35674

April 23, 2018

To Whom It May Concern:

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I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,



Signature

ERIC L WEAVER

Name Printed

1077 RED ROCK RD

Address

TUSCUMBIA AL 35674

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Sonyo Hester
Signature

Sonyo Hester
Name Printed

10475 Hwy 247
Address

Tuscumbia, AL 35674

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Keith McWilliams
Signature

Keith McWilliams
Name Printed

1645 Red Rock Rd
Address

Tusculum, AL 35674

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Roberto Armstead
Signature

Roberto Armstead
Name Printed

453 Church loop
Address

Cherokee, AL 35216

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Ralph Armstead
Signature

Ralph Armstead
Name Printed

455 Church loop
Address

Cherokee Al 35616

April 23, 2018

To Whom It May Concern:

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I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Elijah Hester
Signature

Elijah Hester
Name Printed

10408 Hwy 247
Address

Tusculum, AL 35674

April 23, 2018

To Whom It May Concern:

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I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Ms Mary Foster
Signature
Mary Foster
Name Printed
40 Church Loop
Address
Cherokee, AL 35616

April 23, 2018


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Sincerely,


Signature


Name Printed


Address



April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,

Signature

Name Printed

Address

Stephen May
Stephen May
9610 Hwy 247
Tusculum, AL 35674

April 23, 2018

To Whom It May Concern:

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Sincerely,

Linda Posey
Signature

Linda Posey
Name Printed

345 Church Loop
Address

Cherokee, AL 35610

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

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Sincerely,

Michael Conley
Signature

Michael Conley
Name Printed

1845 Red Rock Rd
Address

Tusculumbia, AL 35674

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

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Sincerely,

Johnny E. Wisdom
Signature

JOHNNY E WISDOM
Name Printed

2429 RED ROCK RD
Address

TUSCUMBIA, AL. 35674

April 23, 2018

To Whom It May Concern:

National Telephone of Alabama, Inc. dba TEC is an active participant in our local community and has been meeting with the members of the local community, like me, to discuss the proposed Red Rock/Hwy 247 Community Connect Project. It is also my understanding that fiber and broadband service will be built to my community under this project.

I live in the Red Rock/Hwy 247 Community and broadband service at a minimum of 10/1 is not available to my residence. I am submitting my support for this much needed project to bring fiber to my community for serving broadband.

Sincerely,


Signature

Richard J Oakley
Name Printed

3645 Red Rock rd
Address

Cherokee al.

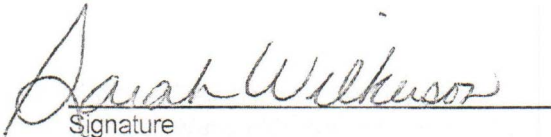
April 23, 2018

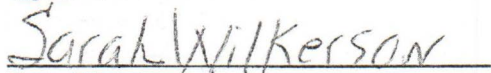
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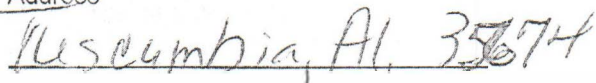
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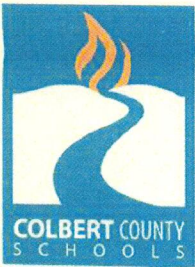
Sincerely,


Signature


Name Printed


Address





COLBERT COUNTY SCHOOLS

Post Office Box 538
425 Highway 72 West
Tuscumbia, Alabama 35674
Phone 256-386-8565 • Fax 256-381-9375
www.colbert.k12.al.us

SUPERINTENDENT
Dr. Gale D. Satchel

BOARD OF EDUCATION
Thomas Barnes
Thomas Burgess
Sandra James
Carlie Mitchell
Mary Moore
Ricky Saint

**ADMINISTRATIVE ASSISTANT
TO SUPERINTENDENT**
Michelle Ragan

**DEPUTY SUPERINTENDENT
OF OPERATIONS AND
FINANCIAL SERVICES**
James Brumley, CSFO

**DEPUTY SUPERINTENDENT
OF TEACHING AND LEARNING
SPECIAL EDUCATION DIRECTOR**
504 COORDINATOR
Wade Turberville

October 22, 2018

To Whom It May Concern:

I am writing on behalf of the Colbert County School System to express my support of National Telephone of Alabama, Inc., dba: TEC on its grant application to extend their fiber facilities to the Red Rock Community. This is something that is a great need for the students in Colbert County School System. A problem that our students encounter is the lack of internet access for research while they are at home. We are very excited about TEC being able to extend their fiber coverage. This will be a game changer for some of our students.

I would add that I am not surprised that TEC is looking for a way they can assist our students. They are one of the school systems best local supporters. This support includes scholarship of our sport teams at Cherokee High School, yearbook sponsorship, career day participation, and always being available to assist our schools. They are a partner of Colbert County Schools and we are working together on a digital literacy program for our students on internet safety.

In addition to our outstanding partnership with their staff, they are also a great partner for everyone in Colbert County. Their employees are the leaders at Cherokee Industrial Development Board, Cherokee Parks and Recreation, Bear Creek Development Authority, Lions Club, etc. You can always count on the TEC employees to go above and beyond.

I ask that you approve the grant application that is submitted on behalf of TEC. This fiber extension is needed in our community, and most of all, it is needed by the students in our school system.

Thanks in advance for your help. Please feel free to contact me should you need additional information or clarification.

Sincerely,

Dr. Gale D. Satchel, Superintendent
Colbert County Schools

GS:mr

"One Team...One Goal...Our Legacy"
[#teamcolbertcounty](https://www.facebook.com/teamcolbertcounty)



October 18, 2018

To whom it may concern,

On behalf of the Shoals Chamber of Commerce, I am writing this letter of support for National Telephone of Alabama dba TEC's proposal for an Alabama Broadband Accessible Grant. The Shoals Chamber of Commerce is one of TEC's community partners in enhancing the quality of life for the people of Colbert County.

An educated and trained workforce is absolutely vital to economic development and success. Reliable Internet access has become necessary for almost all aspects of life, but certainly for both education and workforce readiness. Our children deserve the best education possible in order to prepare for the jobs of tomorrow. Our young adults are facing a future in which they must be comfortable with existing technology in order to compete for available positions. All residents of Colbert County need access to the Internet in order to conduct business, access information, and advance their lives and careers. The availability of broadband in rural areas of Colbert County would enhance quality of life for its citizens in countless ways.

TEC's proposal falls directly in line with the Chamber's mission "to provide leadership for a strong and positive business environment that enables new and existing businesses to flourish." I am excited about the opportunities this proposal could bring to Colbert County and wholeheartedly endorse TEC for the receipt of a broadband grant for the Red Rock community.

Sincerely,

A handwritten signature in blue ink that reads "Caitlin Holland". The script is fluid and cursive.

Caitlin Holland
President

Shoals Chamber of Commerce
20 Hightower Place
Florence, Alabama 35630
(256) 764-4661
shoalschamber.com



**COLBERT COUNTY
EMERGENCY MANAGEMENT AGENCY**

120 W. 5th Street
Tuscumbia, AL 35674

OFFICE
(256) 386-8558

FAX
(256) 386-8564

24 HR. Emergency
(256) 381-0911

Michael L. Melton
Director-Coordinator

Lance Young
Deputy Director

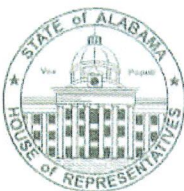
Lawrence Huffman
Grants Manager

To Whom It My Concern:

I am writing this letter to support the grant proposal being submitted by National Telephone of Alabama, dba TEC for the Red Rock Community. National Telephone currently provides internet in Western Colbert County and provides reliable service with superior support. Broadband access is vital for safety entities in rural areas and this community is a critical area. This area is currently served by our agency, the need for broadband coverage is vital and the WIFI access point provided by National to public safety entities would provide access to communication and other internet resources during emergencies. It would also provide a quicker response in times of emergency with broadband access for communication and the use of geolocation services.

Thank you for your consideration.

A handwritten signature in black ink, appearing to read "M. L. Melton".



ALABAMA HOUSE OF REPRESENTATIVES

11 S. UNION STREET, MONTGOMERY ALABAMA 36130

REP. JOHNNY MACK MORROW
DISTRICT NO. 18
1895 HIGHWAY 28
RED BAY, ALABAMA 35582

STATE HOUSE: 334-242-7698
DISTRICT: 256-356-8043

October 18, 2018

To Whom It May Concern,

I represent District 18 in the Alabama House of Representatives. I am writing to express my support for National Telephone of Al., Inc. dba TEC in its application for the Alabama Broadband Accessible Grant Program. The Red Rock area in Colbert County is currently without a reliable terrestrial based provider. Broadband access to our rural areas is vital in the 21st century and will create many opportunities that would otherwise be unavailable.

Broadband services can break down barriers created by distance and overcome geographical challenges inherent in rural communities. Access to education and healthcare are afforded without travel. Libraries with digital content can be made available in the home. Farmers would have immediate information about crops, weather and markets. Home based business opportunities would be equal with the urban counterparts. Employment opportunities can be explored in a real-time fashion with greater access and efficiency.

It is no surprise to me that TEC is leading the charge to provide greater access to broadband to the rural area of Red Rock. Their current network situated in rural Colbert County provides reliable service to its subscribers. TEC's employees are active in the Cherokee Industrial Development Board, Cherokee Parks and Recreation, Bear Creek Development Authority and the Cherokee Lions Club. National Telephone of Al. also supports Cherokee Schools through various sponsorships. I am pleased to join TEC and the Colbert County Commission as a partner in such a worthwhile endeavor.

Sincerely,

A handwritten signature in black ink, appearing to read "Johnny Mack Morrow".

Representative Johnny Mack Morrow

**Cherokee Public Library
118 Church Street
PO Box 333
Cherokee, AL 35616**

Cherokee Public Library is glad to join with National Telephone of Al. dba TEC to partner to begin a digital literacy program. We believe this program will enhance our community's literacy and understanding of the internet. It will provide safe and productive digital usage and internet safety. This partnership will enhance our community's digital literacy for future generations. We will provide the following courses:

Internet Safety for Kids (K-2, Grades 3-5)

Tweens and Teens

Training presentation for Parents, Grandparents and the Community

Internet 101

Job Hunting with the Internet

Along with these seven presentations, other topics are under development. We understand that our commitment to measure, track and improve the digital literacy of our rural community is supported by the resources and tools offered through National Telephone of Al., including broadband connectivity and fiber optic expansion. Broadband service in this area will also create a much-needed access to library digital content. We would also like to show our support for the Red Rock Community Fiber Broadband Project.

Alice Whitaker-Director



Cherokee Public Library



Cherokee Family Clinic, LLC

1080 2nd Street
Cherokee, AL 35616
(256) 359-4519 • Fax (256) 359-4516

To Whom it May Concern:

National Telephone of Al., dba TEC has met and discussed with the Cherokee Family Clinic regarding the proposed grant application for a fiber build in the Red Rock community. Cherokee Family Clinic considers TEC not only a service provider for our area, but a partner and leader within our town. TEC works with the Cherokee Business Development Board, the Lions Club and our schools to promote community growth and education. We are excited to speak on their behalf and in support of the proposed fiber build to the Red Rock community and also the digital literacy program.

Digital access is imperative in rural areas. Healthcare is trending more towards telemedicine and digital access would provide the ability to offer this convenience to our residents. Telemedicine, virtual physician visits, portal access to your healthcare records and more, all serve to provide better care to citizens who do not have close proximity to medical providers. We also know that the Red Rock will provide additional training and educational opportunities that will greatly benefit our entire county.

Carol Davis, CEO



Cherokee Volunteer Fire Fighters Inc.

P.O. Box 181

1455 6th St. Cherokee, Al. 35616

(256) 359-4462

April 25, 2018

To Whom It May Concern:

National Telephone of Alabama Inc., dba: TEC has met and discussed with the Cherokee Fire and Rescue Department regarding a proposed grant application for a fiber build in the Red Rock community. The Fire Department recognizes TEC as a community leader. They provide so much more than communication services here in Cherokee and Colbert County. They work with our local Chamber of Commerce and town government to promote business development, education and literacy. We are happy to speak on their behalf, and in support of the proposed fiber build in Red Rock community and show our support for the digital literacy program here in Colbert County.

For government and public safety, it is important to provide on-going education and training available online. TEC currently provides discounted Internet the Cherokee Public Library. We know that Internet services in the rural Red Rock will aid in provide adjacent volunteer agencies additional training and educational opportunities as well. In rural America, very often the only affordable way to provide training and education is on-line. We have also been informed National would provide free wifi access at the storm shelter location for public safety entities and this would prove invaluable during emergency situations.

We appreciate TEC, their presence in our community and the quality of service that they provide for our town and county. They have our full support in their application for the Community Connect Grant.

Thanks,
Darrin Hogeland
Fire Chief , Cherokee, Alabama

Town of Cherokee
P. O. Box D
3780 Old Lee Hwy
Cherokee, AL 35616
Phone (256)359-4959
Fax (256)359-4016

April 23, 2018

To Whom It May Concern:

National Telephone Company of Al. Inc., dba: TEC has met and discussed with the Town of Cherokee regarding a proposed Alabama Broadband Accessible Grant Program application for a fiber build in the Red Rock community. The Town of Cherokee considers TEC not just a service provider, but a community partner. They provide so much more than communication services here in Cherokee and Colbert County. They work with The Shoals Chamber of Commerce, Shoals Economic Development Authority and the Cherokee Industrial Development Board to promote business development, community growth, development, education and literacy. We were delighted to hear that we have the opportunity to speak on their behalf, and in support of the proposed fiber build in Red Rock and also show our support for the digital literacy program here in Colbert County.

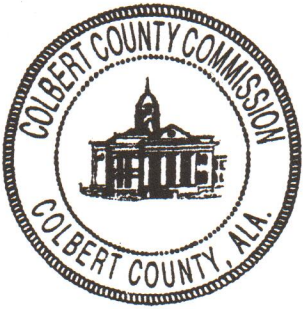
For government and public safety, it is important to provide on-going education and training available online. TEC provides subsidized Internet service at the Cherokee Public Library specifically for training, education and assistance with employment assistance. We know that Internet services in the rural Red Rock area will be equally valuable.

We appreciate TEC, their presence in our community and the quality of service that they provide for our town.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Terry Cosby', with a stylized flourish at the end.

Terry Cosby
Mayor, Town of Cherokee



COLBERT COUNTY COMMISSION
201 N. MAIN STREET, COURTHOUSE
TUSCUMBIA, AL 35674
PHONE (256) 386-8501
FAX (256) 386-8510

MEMBERS
TOMMY BARNES, DIST. 1
DAVID BLACK, DIST. 2
JIMMY GARDINER, DIST. 3
WILLIAM SMITH, DIST. 4
DAROL BENDALL, DIST. 5
CHARLES HOVATER, DIST. 6

October 19, 2018

To Whom It May Concern,

I represent District 6 of the Colbert County Commission. I am writing to express my support for National Telephone of Al., Inc dba TEC in its application for the Alabama Broadband Accessible Grant Program. The Red Rock area in Colbert County is currently without a reliable terrestrial based provider. Broadband access to our rural areas is vital in the 21st century and will create many opportunities that would otherwise be unavailable.

Broadband services can break down barriers created by distance and overcome geographical challenges inherent in rural communities. Access to education and healthcare are afforded without travel. Libraries with digital content can be made available in the home. Farmers would have immediate information about crops, weather and markets. Home based business opportunities would be equal with the urban counterparts. Employment opportunities can be explored in a real-time fashion with greater access and efficiency.

It is no surprise to me that TEC is leading the charge to provide greater access to broadband to the rural area of Red Rock. Their current network situated in rural Colbert County provides reliable service to its subscribers. TEC's employees are active in the Cherokee Industrial Development Board, Cherokee Parks and Recreation, Bear Creek Development Authority and the Cherokee Lions Club. National Telephone of Al. also supports Cherokee Schools through various sponsorships. I am pleased to join TEC and the Colbert County Commission as a partner in such a worthwhile endeavor.

Sincerely,

Charles Hovater
Chairman



ALABAMA STATE SENATE
ALABAMA STATE HOUSE
11 SOUTH UNION STREET, SUITE 735
MONTGOMERY, ALABAMA 36130-4600

COMMITTEES:

AGRICULTURE, CONSERVATION & FORESTRY
FINANCE & TAXATION GENERAL FUND
FISCAL RESPONSIBILITY & ECONOMIC DEVELOPMENT
HEALTH
JUDICIARY

LARRY C. STUTTS
SENATOR
DISTRICT 6
MONTGOMERY
334-242-7862

LARRY.STUTTS@ALSENATE.GOV

October 22, 2018

To whom it may concern:

I represent Senate District 6 in the Alabama State Senate. I am writing to express my support for National Telephone of Alabama, Inc., d/b/a TEC, in its application for the Alabama Broadband Accessible Grant Program.

The Red Rock area in Colbert County is currently without a reliable terrestrial based provider and broadband access to our rural areas is vital in the 21st Century and will create many opportunities that would otherwise be unavailable. For instance, broadband services can break down barriers created by distance and overcome geographical challenges inherent in rural communities. Access to educational opportunities may be made available without travel. Libraries with digital content can be made available in the home. Farmers would have immediate information about crops, weather and markets. Home based business opportunities would be equal with their urban counterparts, and employment opportunities can be explored in real-time with greater access efficiency. I grew up in a rural area southwest of Cherokee with phone service provided by TEC.

It is no surprise to me that TEC is leading the charge to provide greater access to broadband in the rural area of Red Rock. Their current network situated in rural Colbert county provides reliable service to its subscribers. TEC's employees are active in the Cherokee Industrial Development Board, Cherokee Parks and Recreation, Bear Creek Development Authority and the Cherokee Lions Club. National Telephone of Alabama, Inc. also supports Cherokee Schools through various sponsorships.

I am pleased to join TEC and the Colbert County Commission as a partner in such a worthwhile endeavor and ask that you give serious consideration to my comments in support thereof.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry C. Stutts".

Larry C. Stutts, M.D.
Alabama State Senator
District 6

LCS/dg