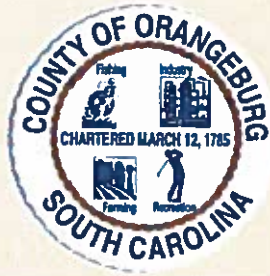


2015 JMGBL Awards Application

Submission Date	2015-06-26 15:52:20
This application is for:	J. Mitchell Graham Memorial Award
Project Title	Connecting Our Community To Its Future
County/Counties	Orangeburg County
Staff Contact	Harold M. Young
Job Title	County Administrator
E-mail Address	hyoung@orangeburgcounty.org
Phone Number	803-533-6101
Please provide a summary of your entry (no more than 100 words) to be used in a handout for the awards competition and included in press releases/publications. You may either type the summary in the text box or upload it as an attachment below.	Orangeburg County is designated as a “persistent poverty county”, meaning that more than 20% of our population has exceeded the national poverty rate for the last three consecutive census periods (30 years). Orangeburg County committed to its broadband project as a means to connect children in poor, rural areas with their schools and to their future. Bringing broadband service to existing and prospective industrial sites will also stimulate job creation in an area with generational high unemployment rates and help our country compete on a global level.
Presentations may include more than one speaker; however, each speaker should be aware that the 10-minute time limit is strictly enforced. Please list the name, title, and e-mail address of each speaker:	Harold M. Young- County Administrator William Metts- Project Engineer
Will any of the speakers need accommodations (wheelchair accessibility, etc.) during the awards competition?	Yes
To submit these attachments online, please upload Microsoft Word or PDF documents below.	J Mitchell Graham Award 2015.pdf



ORANGEBURG COUNTY BROADBAND



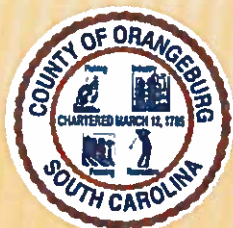
SCAC

South Carolina Association of Counties



SCAC

South Carolina Association of Counties



2015 J. Mitchell Graham
Memorial Award
Orangeburg County

J. Mitchell Graham/Barrett Lawrimore Memorial Awards

Application Form

SCAC's Awards Toolkit (<http://www.sccounties.org/awards>) allows counties to submit applications online and provides a fillable PDF application for printing.

Without exception, all applications must be submitted online or delivered to SCAC by 5 p.m. on Friday, June 26, 2015.

This application is for:

J. Mitchell Graham Memorial Award

Barrett Lawrimore Memorial Regional Cooperation Award

Project Title: Connecting Our Community To Its Future, Orangeburg County Broadband

County/Countries: Orangeburg County

Staff Contact: Harold Young Job Title: County Administrator

Email Address: hyoung@orangeburgcounty.org Phone Number: 803-533-6101

Mailing Address: 1437 Amelia Street, Orangeburg SC 29115

Please provide a summary of your entry (no more than 100 words) to be used in a handout for the awards competition and included in press releases/publications. You may attach the summary, if you prefer.

Orangeburg County is designated as a "persistent poverty county", meaning that more than 20% of our population has exceeded the national poverty rate for the last three consecutive census periods (30 years). Orangeburg County committed to its broadband project as a means to connect children in poor, rural areas with their schools and to their future. Bringing broadband service to existing and prospective industrial park sites will also stimulate job creation in an area with generational high unemployment rates and help our county compete on a global level.

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Harold M. Young- County Administrator

William Metts- Project Engineer

Will any of the speakers need accommodations (wheelchair accessibility, etc.) during the awards competition? Yes No

Attachments

Your application should include the following attachments. Please review the instructions on pages 2 and 3 of this brochure carefully, before preparing them. Letters of support and the cover page do not count toward the 13-page limit.

- A concise Project Description to explain the purpose and significance of the entry (up to eight pages)
- Any additional materials needed to support your application (up to five pages)
- Barrett Lawrimore Memorial Regional Cooperation Award applications must include letters of support from the chief administrative officers for each participating political subdivision

If mailing your attachments, please mail them to: SCAC, PO Box 8207, Columbia, SC 29202-8207

If using an express carrier, mail to: SCAC, 1919 Thurmond Mall, Columbia, SC 29201

County of Orangeburg

Connecting Our Community To Its Future

Orangeburg County Broadband Project

Executive Summary

The Orangeburg County Broadband Project currently provides broadband internet service to 4,225 rural households that did not previously have access to broadband service. Gigabit service is available for every home in the project area. In addition to residential service, the Project makes broadband internet service available to a 2,200 unit assisted living retirement community, three industrial parks, six schools, 45 businesses and two medical facilities.

The Project includes 785 miles of fiber construction. The architecture is designed with a 10Gbps backbone ring with 50m5 failover. The network has redundant links to upstream internet providers with border control protocol to manage failover. The network is designed to support upgrades with a single fiber capable of carrying 400Gbps of traffic.

The Project was developed by an engineering company located within the project area. The engineering company, W. Metts Engineering, initially proposed the concept to local telephone and electric cooperatives, but they declined to support the project. When the Project was proposed to Orangeburg County, the County had the foresight and vision to embrace the broadband project and provide the support needed for success.

Orangeburg County has been awarded two grants for this Project: an ARRA grant for \$18 million and a Community Connect grant for \$1 million. As part of the Community Connect award, Orangeburg County is operating a community center to provide internet access to unserved citizens. The community center is equipped with computers and a Wi-Fi hot spot for use at no charge. The community center staff provide technical support and training classes that are open to the public.

Benefit/Importance of Project

1. Why was this project undertaken?

The Project was undertaken to provide broadband internet service to an unserved area in rural Orangeburg County. The project area is provided telephone service by companies that have elected not to provide broadband internet service. The Orangeburg County Broadband Project has allowed this part of the County not to be left behind.

2. What is the significance of this project to your community as a whole? How does it relate in importance to the other problems in your community?

In today's environment broadband internet service is vital for economic development, education, and telemedicine. The Orangeburg County Broadband Project provides 10Gbps of broadband access to three industrial parks, six schools and a 2,200 unit assisted living retirement community.

3. How much of the county's population is benefited by the project? In what specific ways are different groups of citizens within the county better off than before?

The Orangeburg County Broadband Project currently offers broadband internet service to 4,225 households, a 2,200 unit assisted living retirement community, three industrial parks, six schools, 45 businesses and two medical facilities. Prior to the Orangeburg County Broadband Project, this rural area of Orangeburg County did not have access to broadband internet service.

The current project area includes 285 square miles which is approximately 25% of Orangeburg County. In addition to the current project area, Orangeburg County Broadband has backbone fiber that passes near 10,000 household that could be offered service in future construction phases.

4. What degree of success did the project attain? What major objectives were achieved?

The construction of the Project was successfully completed on schedule and under budget. Gigabit internet service is now available to every household in the project area.

Project Effort/Difficulty

1. What did your county have to do to accomplish its objectives?

Orangeburg County had the vision and foresight to pursue the ARRA Award which allowed the County to pursue the Broadband Initiatives Grant. Private providers, like AT&T and others, have the ability to "cherry pick" service areas without restriction in order to maximize profit potential. This is done at the expense of rural areas and is demonstrated by the lack of service options that presently exist in rural communities. The directing of potential government-owned providers into the 'unserved areas' while also imposing unreasonable restrictions within more populated areas set up a true David vs. Goliath moment in bringing broadband service to the citizens of Orangeburg County. Private providers lobbied to have House Bill 3508 enacted in order to prevent local government from entering in the broadband business. Orangeburg County, with the help of its Legislative Delegation, was able to receive an exemption to be able to accept the grant and bring much needed broadband service to our community.

2. What challenges occurred during the project? Were there any community concerns?

In December 2009, a report entitled "Creating Greater Opportunity in South Carolina's I-95 Corridor: A Human Needs Assessment" was jointly released by South Carolina State University in Orangeburg, South Carolina and Francis Marion University In Florence, South Carolina. The report utilized data that was collected and analyzed by a consultant, RTI International, based in the Research Triangle Park in North Carolina. The report identified many of the challenges that have contributed to the historical lack of community and economic development opportunities along the I-95 corridor. The report identified the following finding:

"Finding 4.5 – The lack of Internet and broadband infrastructure limits students and workers access to markets, access to healthcare, and entrepreneur opportunities."

This finding rang true for the leadership in Orangeburg County who immediately recognized that true, high-speed broadband service was not being offered by the private sector providers to citizens living in the rural areas of the county. The same situation also existed for prime

economic development sites located along the I-95 and I-26 corridors in Orangeburg County. This condition led Orangeburg County to apply for broadband grant funds under the USDA Rural Utilities Service (RUS) Broadband Initiatives Program (BIP). The application was viewed as an opportunity to make an investment in the future of Orangeburg County.

In September 2010, Orangeburg County was selected as a recipient of an \$18,650,000 broadband project award by USDA RUS. The project award was comprised of a 75% grant (\$13,987,500) and a 25% loan (\$4,662,500). After having fought through the hurdles of House Bill 3508 another blow was handed to Orangeburg County. The County was told that it could not use the loan funds because the loan documents were created for private industry instead of local government. Orangeburg County had a major decision to make; it could pay the \$4,662,500 and accept the grant or turn down the project.

3. What were the nature and extent of the county government's efforts to alleviate the problem(s)?

Rural communities with limited tax bases often lack the resources that are needed to develop the community and economic development infrastructure that is required today to be competitive and economically sustainable. In 1998, the citizens of Orangeburg County decided to invest in their own future and voted to implement a one-cent Capital Projects Sales Tax. This tax allowed for generation of funds to construct basic community and economic development infrastructure such as water and wastewater systems, road improvements, and industrial parks. Once approved by voters, the Capital Projects Sales Tax remains in effect for seven years before it expires. In 2004 and again in 2010, the voters of Orangeburg County approved two additional extensions of the Capital Projects Sales Tax. The Capital Projects Sales Tax is a true indicator of the level of commitment that the citizens of the predominantly rural and economically distressed Orangeburg County have been willing to make in order to improve their local quality of life. County Council chose to pay the \$4,662,500 cash match, accepted the grant money and brought the broadband project to the deserving residents of Orangeburg County.

4. Was financing the project an obstacle? Were there any unusual factors inherent in financing the project?

The ARRA award was \$18 million. This initially included a 25% loan component. After the award, the County determined that it could not accept the loan component and instead provided a 25% match for the construction. Funds were available because the County has successfully implemented a 1% Capital Projects Sales Tax fund.

5. Did any agencies, citizen groups, or other organizations assist your county with this project? Did their participation pose any particular challenges or offer any unique contributions or benefits?

The Orangeburg County Fire District was very supportive of the project and provided a location for six pre-fabricated concrete shelters and four electronics cabinets. Now every County Fire Station within the project service area has broadband access. Orangeburg County School District Four was also very supportive in the effort to construct fiber to six school locations.

6. Are there any unresolved problems or other goals left to tackle?

The Orangeburg County Broadband Project has the goal of making broadband internet service available to all the citizens of Orangeburg County. Successful completion of the ARRA and Community Connect award are a solid foundation for this goal, but additional construction is needed to be able to offer service to all rural areas of the County. This will require additional funding.

Project Originality/Innovation

1. Justify the uniqueness of this project. What makes it different from other projects designed to achieve the same objective?

No other project in the state has been identified as having the ability to enhance economic development potential or educational opportunities to the degree of the Orangeburg County Broadband Project. Providing high-speed internet service is closely linked to positive external factors such as improving the citizens' access to health care services via Telehealth when traditional providers are unavailable or inaccessible. High-speed internet service is also associated with improved public services which include efficient waste pick-up, traffic signals capable of real time responses, fewer power outages, and enhanced public safety (police/fire) infrastructure. All of these positive external benefits improve the safety and quality of life of citizens in Orangeburg County. High speed internet service is associated with improved economic development as it is necessary in today's competitive business environment that all competitive business operations be provided with high speed internet service. The Orangeburg County Broadband Project places Orangeburg County one step closer to attracting highly competitive businesses which have the ability to reduce generationally high unemployment and reduce the number of people living in poverty in Orangeburg County.

2. Do you know of any other similar programs in South Carolina? If so, how is your program different?

Oconee County, South Carolina was also awarded an ARRA grant to build a fiber optic network. The Oconee County network was designed to be a middle mile project which did not include distribution and last mile construction. The Orangeburg County Broadband Project was developed, designed, and constructed to provide end user broadband internet service.

3. What innovations were required in accomplishing your objectives?

Orangeburg County held a panel discussion for the purpose of receiving input from the citizens of Orangeburg County. The citizens advised that their biggest frustration was seeing small community owned businesses being pushed out by large national companies. It is the true that some of the smaller firms lack the resources to properly service the community. However, partnership and good planning can enable smaller providers to establish and provide good service in limited areas. These partnerships also create an environment that encourages industry competition. In the absence of industry competition citizens in rural areas become subject to monopoly pricing and slower internet service speeds. Government owned networks in rural areas create appropriate alternatives to poor service and ensure industry competition within the service area. The creative partnership between Orangeburg County and Metts Engineering provides a test case for creating better service, enhancing industry competition, and

establishing a better quality of life for the citizens of Orangeburg County. Additionally, this partnership establishes the foundation from which small, local businesses can then scale up to effectively tackle the broader market. Orangeburg County partnered with Metts Engineering to provide technical expertise in building a quality high-speed wireless network. This company started small and now the Internet service provider is becoming one of the county's fastest-growing businesses as the service expands. This creative partnership gave the small business as much incentive as the County to successfully complete the project.

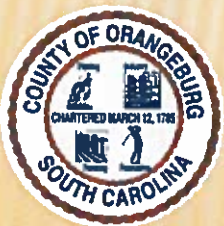
4. Who provided the creativity and imagination in your project?

The Orangeburg County Council, County Administrator, and Metts Engineering brought much needed creativity to this project. Orangeburg County is designated as a "persistent poverty county", meaning that more than 20% of our population has exceeded the national poverty rate for the last three consecutive census periods (30 years). Orangeburg County committed to its broadband project with the vision. This vision is to connect children in poor, rural areas with their schools and to bring broadband service to existing and prospective industrial park sites in the knowledge that these improvements will stimulate job creation in an area with generational high unemployment rates.

Broadband Office

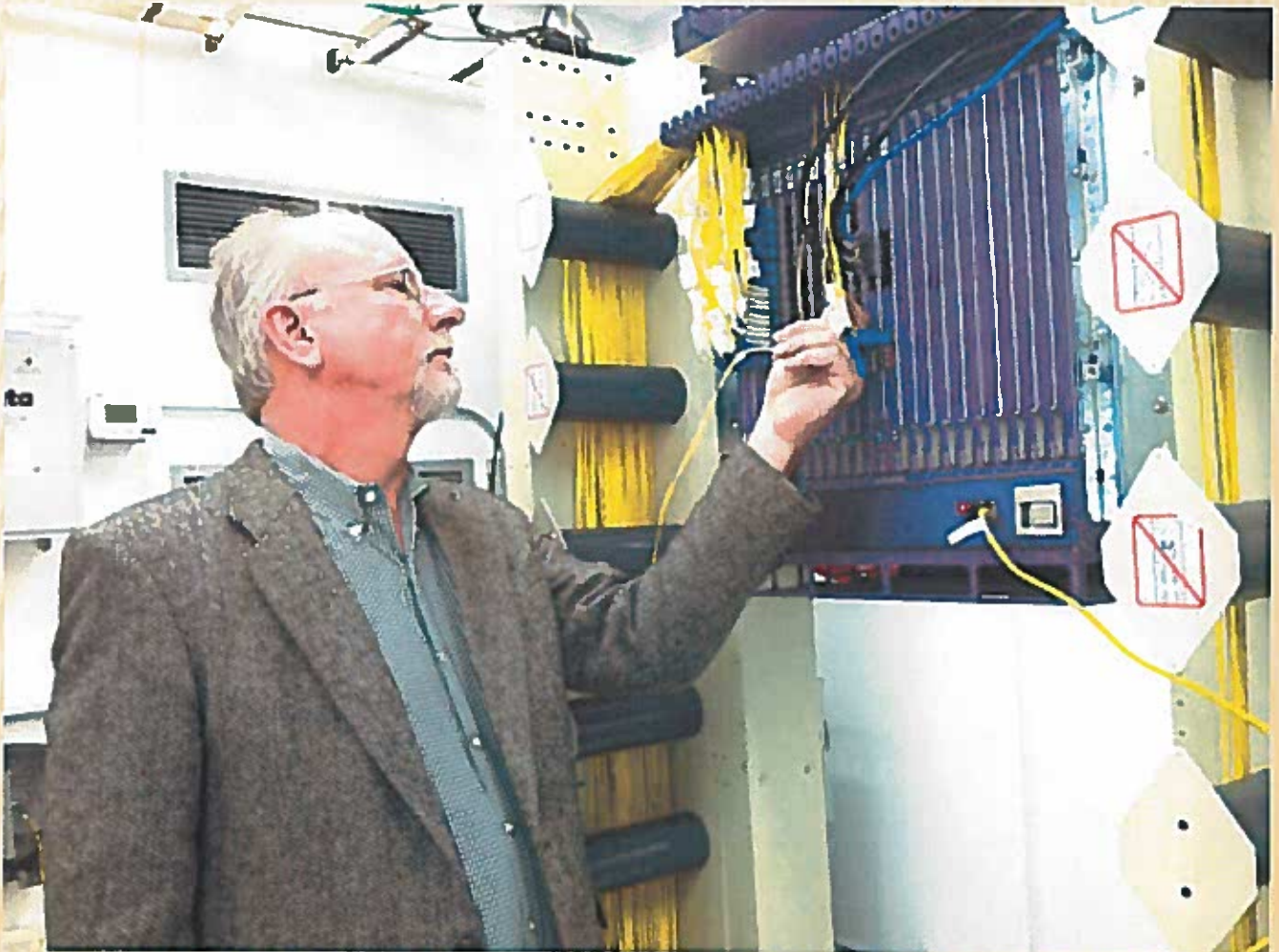


Cable Entrance Splice Closure



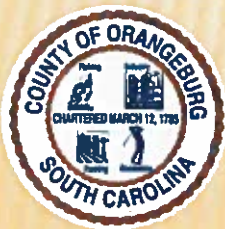
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Central Office for Fiber



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Orangeburg County

ONT & UPS Backup

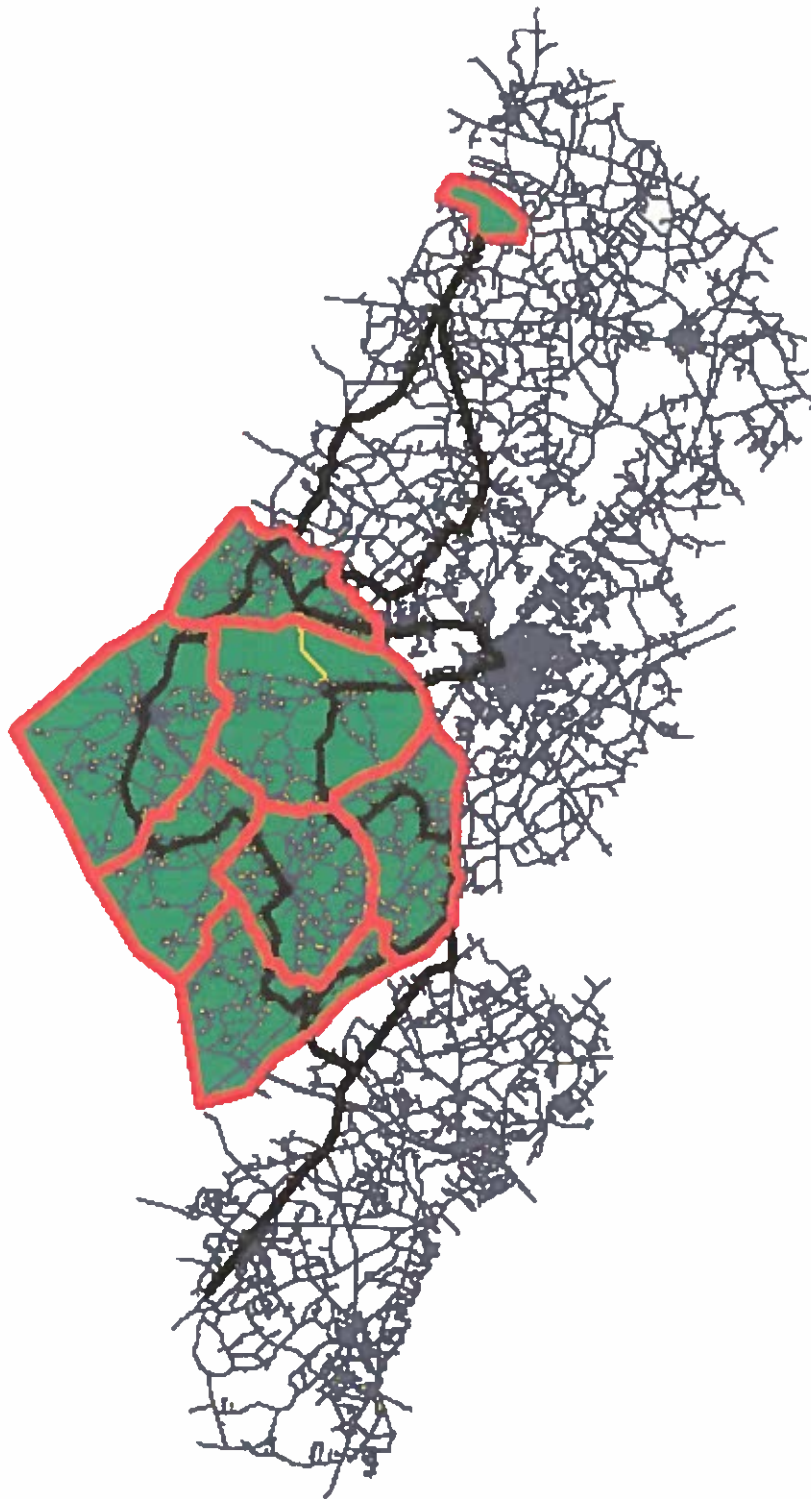


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Fiber Installation



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1 OF SHEET	W. MITTS ENGINEERING CO., INC. © <small>111 HUNTER DR BLANCHFORD, NC, 28613 (919) 574-4342</small>	ORANGEBURG COUNTY BROADBAND SERVING AREA	PROJECT: <u>OC20</u>
			DRAWN BY: <u>MM</u> CHECKED BY: <u>EPB</u> DATE: <u>8/23/15</u>