



CONNECTED COMMUNITIES

Connecting MHA

Providing Wi-Fi Access and Education
to New Affordable Housing Projects

Pilot Project Case Study

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LOCATION

Murfreesboro, TN

PROJECT COSTS

\$865,488

Total Funding

\$595,000

TVA Connected Communities

\$270,488

Project Team Match

FOCUS AREAS



Broadband and Digital Literacy



Energy and Environmental Justice

Project Summary

By providing fiber and energy education to limited-income residents, Murfreesboro Housing Authority (MHA) improved the quality of life for individuals and expanded access to services.

TOPICS

- ✓ Wi-Fi Connectivity
- ✓ Energy Education
- ✓ Benefits for Limited Income Customers

TECHNOLOGY

- ✓ Fiber Optics

KEY PARTNERS

- Local Housing Authority
- Strategic Communications Firm
- Local Power Company
- Project Advisor





“ When everyone talks about the benefits of all these advanced technologies, we neglect to remember that there is a large segment of our population that does not even have an internet connection or smartphone. This is not only important for access to energy information and savings programs, but for life. We really took the time to speak with customers and work with them on information availability and technology training to make sure they saw the long-term sustainable benefits of connectivity and smart energy behavior.

JULIET SHAVIT | president and chief executive officer, SmartMark Communications

Challenge and Solution



Challenge

Affordable housing has many benefits for limited-income residents, like stability and resources for success. However, the cost of internet access can be burdensome. The last few years have proven the importance of connectivity – it is no longer just for entertainment. Access to the internet is crucial for many daily tasks – working, banking, medicine, school and so much more.

Lack of internet access also impacts people's ability to access important energy information, participate in certain utility programs and obtain energy assistance information.



Solution

By providing fiber and energy education to limited-income residents, Murfreesboro Housing Authority (MHA) improved the quality of life for individuals and expanded access to services.

Focus Areas Supported



Broadband and Digital Literacy

Many residents of affordable housing must prioritize needs other than connectivity, which leaves them unable to access the many benefits the digital landscape can offer. Residents who enroll in this pilot program receive three years of Wi-Fi connectivity for free, allowing them to pursue opportunities that may have otherwise been out of reach, such as telehealth, remote education and financial literacy resources.



Energy and Environmental Justice

Providing residents with free Wi-Fi connectivity will not only help improve their quality of life but potentially lower their energy bills when connectivity is coupled with tailored energy educational information. Connectivity will also enable homes to be “smart home” ready so residents will have the opportunity to benefit, in the future, from new in-home technologies that automate energy reduction and make it easier to save.

Goals, Approach and Results

Project Goals

MHA aimed to install fiber internet at three affordable housing complexes and worked with SmartMark Communications to create a digital literacy campaign to accompany the newly available Wi-Fi. Since the three participating MHA complexes were under construction when the project began, the fiber cable installation happened without interruption to residents' lives.

A unique aspect of this pilot project is the ability to tie together internet access and energy-saving information by providing tips and information regarding energy usage on a designated website to help residents reduce their energy bills. United Communications, a subsidiary of Middle Tennessee Electric (MTE), installed Wi-Fi and offered three years of free service to residents who opt into the program, making this pilot project a win-win for residents.



PILOT PROJECT GOAL

Provide internet access to improve quality of life for MHA residents and provide insights that can have lasting impacts on the city of Murfreesboro and other communities.

Goals, Approach and Results

Project Approach

When the Tennessee Valley Authority (TVA) Connected Communities grants were first introduced, SmartMark Communications felt that they were equipped to identify opportunities in the community that fit the grant. With prior experience from a smart home pilot at a Maryland housing authority, SmartMark was well aware of the connectivity and energy equity needs of limited-income residents. Many residents lacked access to the internet, impacting their ability to attend school remotely or maintain jobs during the COVID-19 pandemic. Recognizing this, SmartMark approached Thomas Rowe, executive director at MHA, to discuss residents' internet access, which revealed significant barriers affecting their daily lives.

The project team proposed using the grant to deploy fiber internet infrastructure and provide energy education, informing residents about available energy assistance programs and ways to reduce energy bills without sacrificing essential needs. This phase involved fiber deployment with United Communications, a local cable provider and subsidiary of MTE, who offered three years of free Wi-Fi to participants. This partnership naturally

integrated connectivity and energy from the outset, benefiting all parties involved.

The project team conducted both quantitative and qualitative research, involving surveys and focus groups to understand participants' experiences and their baseline knowledge of energy and internet usage. Throughout the deployment, SmartMark conducted baseline research, mid-deployment evaluations and ongoing progress assessments.

A dedicated website complemented these phases, offering information about energy assistance programs and other resources, including seasonal energy-saving tips and video tutorials on using the myMTE account to access various features. This comprehensive approach ensured that residents not only gained internet access but also received valuable education on energy efficiency, ultimately enhancing their quality of life.

Although the project experienced construction delays, fiber was fully deployed in two communities and is being installed in the third community.

Goals, Approach and Results

Project Results

85%

of residents

have now signed up for myMTE

62%

of residents

are using the internet for work or school

70%

of residents

say they have learned from the energy savings education

46%

of residents

have seen a reduction on their bill

70%

of residents

say being connected allows them to order things online and have them delivered

70%

of residents

say the energy education has had a positive effect on how they save energy at home



CUSTOMER TESTIMONIALS

- “I am really enjoying the internet service, and it is helping me attend college.”
- “I don’t have to worry about not getting to have internet access.”
- “It has saved me hundreds of dollars on my internet bill each month.”
- “I love it and thank you.”
- “It’s been a great experience.”
- “Internet is fast and reliable. I am much happier than I was with my previous internet provider. You are much nicer.”

Goals, Approach and Results

Key Partners

Bringing together experienced professionals ensures there is community support for the pilot project and knowledge of how to make it successful.

- **Middle Tennessee Electric**
 - **Makenzy Butts**, communications coordinator
 - **Glenn Hollandsworth**, manager, Member Revenue & Programs
 - **Robert White**, vice president of Community Relations and Member Services
- **Murfreesboro Housing Authority**
 - **Thomas Rowe**, executive director
- **SmartMark Communication, LLC**
 - **Kaitie Drumming**s, assistant account executive
 - **Meredith Salefski Ponce**, associate vice president
 - **Juliet Shavit**, president and chief executive officer
- **Tennessee Valley Authority**
 - **Lisa Akins**, senior program manager
 - **Georgia Caruthers**, senior project lead
- **United Communications**
 - **Rick Jurosky**, chief technology officer
 - **Josh Lynch**, chief customer officer
 - **Jodie Miller**, director of Customer Operations

Lessons Learned

As the main focal point outside of the initial Wi-Fi installation is digital literacy and energy-saving education, many of the key learnings and best practices are related to customer engagement and communication. The pilot team learned that conducting personalized outreach to customers can ensure higher engagement.

Participation in the educational component of the project is high, with most residents showing interest in learning more about how to save energy and money on their electric bills. All participants took part in the Winter Education program, and 80% of residents participated in at least some part of the Summer Education program. As of July 2024, 79% of residents signed up for free internet; those who did not sign up cited a lack of trust in any kind of program as the leading reason for not participating.

80%

of residents

participated in the Summer Education program

79%

of residents

signed up for free internet as of July 2024

Customer Engagement Considerations

Timing for Customer Engagement

Determine the appropriate time to engage with customers and recognize when a trial environment may not be suitable for that individual.

Alleviate Financial Concerns

Empathize and address customers' financial concerns and educate them on the resources available to help them manage costs related to energy usage.

Understanding Vulnerable Customers

Ensure all members of the project team are aware of and sensitive to the vulnerabilities and challenges faced by customers, especially those less familiar with this demographic.

Learning from Direct Contact

Direct interactions with a small group of customers in a pilot project help gather insights that might be missed on a larger scale. Use the opportunity to conduct focus groups and interviews to glean detailed insights.

Build Feedback Mechanisms into Program Design

By adding nonnegotiable feedback checkpoints into the deployment schedule, the project team collected responses on pre-engagement surveys, focus groups with participants and quarterly surveys to pulse progress in energy-saving behaviors.

Lessons Learned

Customer Engagement Considerations (CONTINUED)

Create Accessible Communication Channels

The project team created a support hotline and email for customers to use in case of a connectivity issue or other related concerns, providing a direct channel for real-time troubleshooting and response.

Utilize Local Housing Authorities

Leverage the housing authority's deeper understanding of the community to better support vulnerable customers and ensure the project team's preparedness to accommodate their needs.

Participant Communications Activities

- Orientation at resident move-in that includes:
 - Brochure that detailed the three-year free internet service, energy education, website and contact information
 - Sign-up form
 - Pre-engagement survey
- Website with energy education and conservation tips
- Focus groups with participants
- Quarterly energy education and/or survey to pulse progress in energy-saving behaviors



The Connecting MHA pilot truly demonstrated the impact of internet access not only on energy and financial savings, but on quality of life. To hear the stories of our participants reminds us how much the future of the grid rests on positive customer engagement and that we have an opportunity as an industry to make an impact for the greater good.

JULIET SHAVIT | president and chief executive officer, SmartMark Communications



Looking Ahead

Phase 2 – Residential Demand Response Through Connecting MHA

Expanding on the success of this pilot project, [Connecting MHA](#) utilizes the newly connected Wi-Fi in one of the MHA complexes to conduct a demand response (DR) pilot project. This pilot project further explores the benefits of connectivity and its relationship with smarter energy management.

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