



ARKANSAS VALLEY ELECTRIC COOPERATIVE CORPORATION

**CRITICAL STATEWIDE PUBLIC SAFETY COORDINATION AND
FASTER CUSTOMER RESPONSE WITH MOTOROLA APX P25 RADIOS**





CUSTOMER PROFILE



ARKANSAS VALLEY ELECTRIC COOPERATIVE CORPORATION (AVECC)
OZARK, AR

INDUSTRY

Utilities

SOLUTIONS

- APX™ 4000 Single-Band P25 Portable Radios
- APX™ 1500 Single-Band P25 Mobile Radios

FEATURES AND BENEFITS

- Guaranteed radio interoperability among utility employees and public safety agencies
- Expedited power restoration due to enhanced worker coordination
- Expanded coverage and unlimited mobility, wherever employees are dispatched
- Operational cost savings by tapping into a proven public safety infrastructure

Arkansas Valley Electric Cooperative Corporation (AVECC) is a not-for-profit Corporation founded in 1937 to bring fairly priced electricity to west-central Arkansas. It has since expanded to eleven counties in Arkansas and three in Oklahoma, operating more than 6,604 miles of distribution lines, 36 electrical substations and 58,000 electric services.

The counties supported by AVECC expect it to be ready, capable and equipped for power outages, natural disasters, ice storms, and other events that impact the electric grid. Meeting these expectations requires reliable communications and efficient collaboration between dispatch, Cooperative crews, and first responders.

In order to maximize public safety and service, the Cooperative joined the Arkansas Wireless Information Network (AWIN), a statewide digital communication system designed to coordinate communications among public services entities, such as police and other first responders. AVECC is the first electrical co-op to take part in the group.



THE CHALLENGE

RESTRICTED COVERAGE ACROSS TERRITORY LINES

It had long been a challenge for AVECC to maintain reliable connections for employees in the field. A lack of coverage led workers to occasionally turn to smartphones when radio service was unavailable. This came with limitations, however, including not being able to use talk groups with colleagues and critical partners, and the risk of coverage gaps or outages on the cellular network. The Cooperative wanted to extend its radio communications network so employees could connect more reliably, particularly during urgent situations and in locations where cellular signals may not be available.

IMPROVING OUTAGE RESPONSE TIMES

In west-central Arkansas, the winter months often bring treacherous weather and dangerous ice storms, creating widespread power outages. In 2017, for example, an ice storm paralyzed much of the area, leaving 300,000 in Arkansas without power.

AVECC is committed to restoring power as quickly and safely as possible for residents. In order to ensure worker safety wouldn't be compromised during outages, on-site employees would often have to physically locate each other before re-energizing the lines. The Cooperative wanted to eliminate this manual process, allowing employees to communicate and coordinate instantly while speeding service to customers.

FASTER, INTEGRATED STATEWIDE COMMUNICATIONS WHILE MANAGING COSTS

In addition to requiring seamless communications among utility employees, it was important for AVECC to be able to talk to support crews and response teams in surrounding areas without coverage, voice quality, or compatibility issues. AVECC needed to instantly connect to disparate parties, such as emergency personnel and utility crews from other territories, when and where needed. At the same time, the Cooperative was facing a balancing act, focused on enhancing its communications capabilities, while simultaneously controlling costs. The challenge was to be at the forefront of safety and communications technology, while operating within budget parameters.



THE SOLUTION

To expand its responsiveness with customers and enhance statewide safety communications, AVECC joined the Arkansas Wireless Information Network (AWIN), a statewide digital communication system offering full interoperability among members within Arkansas and neighboring states. This enabled the Cooperative to connect to AWIN's existing infrastructure and take advantage of the most efficient and cost-effective P25 compatible radios.

AVECC purchased Motorola Solutions APX™ 4000 Single-Band P25 Portable Radios and APX™ 1500 Single-Band P25 Mobile Radios. They enhance day-to-day operations, allowing AVECC repair crews to talk as a group, while also instantly connecting with talk groups within AWIN, such as emergency personnel and other utility cooperatives, during an emergency.



THE BENEFITS

ENHANCED COVERAGE FOR DAILY OPERATIONS AND EMERGENCIES

With APX two-way radios, employees know they have reliable communications coverage and exceptional voice quality wherever their responsibilities take them. Roaming is seamless, allowing personnel to stay connected with each other on-site everyday while strengthening safety during critical events.

AVECC is also benefiting from APX two-way radio features like Bluetooth and always-on functionality. Bluetooth is particularly valuable for employees perched high in a bucket-truck, when interacting with a separate hand-held device can be unsafe. Now, they can speak through the truck radios, with no latency or distortion.

FASTER CUSTOMER RESPONSE AND IMPROVED SERVICE

For routine service calls, inbound requests are routed through the dispatch center to determine who needs to be sent for service and response. "We have four different district offices within Arizona Valley and each office has their own talk group for emergency purposes," said Howe. "So, if the Ozark district is on the radio and others in the group are aware of the situation, they can offer assistance and back-up if they are in close proximity."

AVECC has GPS truck tracking, enabling dispatch to automatically know where the closest available truck is located. When crews arrive, AVECC can keep radio traffic focused to only those who need to hear it with talk groups. For members of the AWIN system, dispatch can be bypassed, saving valuable time by using one of the designated talk group channels to reach desired parties.

STATEWIDE INTEROPERABILITY AND COOPERATION, WITHIN BUDGET

With the Cooperative's radios integrated into AWIN, AVECC can connect directly with emergency personnel whenever needed. During significant ice storms, the statewide system allows dispatch, first responders, and AVECC crews to share real-time updates on emergencies such as downed power lines and instructions to keep residents away from at-risk areas.

By participating in AWIN, all P25 devices are compatible and connected at the push of a button, allowing critical employees and third-parties to collaborate via preloaded, state-approved channels and talk groups. Through AWIN, the Cooperative is able to tap into a statewide infrastructure and next-generation communications system while staying within their budget. Plus, by enabling utility workers to execute everyday tasks more efficiently, accurately, and quickly, AVECC boosts productivity while controlling costs.

"Coverage enhancement is one of the biggest benefits we've experienced with the Motorola system, gaining unparalleled reach for nearly 100% of our service area," said Chris Howe, Manager of Engineering with Arkansas Valley Electric Cooperative. "The voice clarity is also a major differentiator, allowing us to eliminate reliance on cell phones, and delivering the reliability we require — with no intermittence or chop."

"Another major efficiency gain comes from the fact that we now have separate talk groups for construction and maintenance crews, cutting down on radio traffic and saving valuable time," said Howe. "Only those who need to be in the conversation take part, resulting in more efficient communications overall and more efficient use of resources."

"In Arkansas and Oklahoma, the threat of serious storm damage keeps us on our toes," said Howe.

"We want to be as prepared and coordinated as possible to have the right people on site to help get the lights back on, and keep them on, for our valued customers."

For more information, please visit us at www.motorolasolutions.com/utilities



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. motorolasolutions.com

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