

## Project Abstract

**Applicant Name:** Arkansas Valley Electric Cooperative Corporation (AVECC)

**Applicant Location:** 1811 West Commercial Street, Ozark, AR 72949

**Project Title:** Beyond AMI to True Grid Intelligence with Distribution Automation

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**FOA Topic Area:** Topic Area 2: Smart Grid Grants (BIL section 40107)

**Project Location:** AR-003 and AR-004

**Project Objectives:** Arkansas Valley Electric's project "Beyond AMI to True Grid Intelligence with Distribution Automation" aims to increase efficiency, reliability, and flexibility of AVECC's distribution grid to enhance lives within the rural cooperative territory and Justice 40 disadvantaged communities. Other objectives are to reduce grid maintenance cost, reduce environmental impact, and improve safety for electric utility workers and the community.

**Project Description:** AVECC plans to achieve the goal of increased efficiency, reliability, and flexibility through the development of a Smart Grid using proven industry technologies that are connected and controlled by SCADA (Supervisory Control and Data Acquisition) software. The proposed grid enhancing technologies include Advanced Metering Infrastructure (AMI), vacuum fault interrupter circuit reclosers, conservative voltage reduction (CVR) capable regulators, and real time feedback switched capacitor banks. The deployment of these Smart Grid technologies would enhance secure communications and provide full visibility and control of the distribution grid while also providing the structure for full grid automation in the future. The installation of programable vacuum reclosers would improve grid reliability through better coordination, improved fault isolation, and faster outage response while also reducing maintenance cost and oil waste. The proposed capacitors banks and regulator with advanced controls would improve power quality and efficiency while reducing AVECC's peak demand. The AMI system will increase consumer engagement and provide flexibility for the increase in distributed generation or electric vehicles. All of these technologies will directly improve cooperative members lives by reducing energy burden, reducing and shortening outages, and paving the way for future generation and loads beyond the meter.