

Name of the applicant: American Electric Power Service Corporation, a wholly owned subsidiary of American Electric Power Company, Inc. and its operating subsidiaries (“OpCos”) that cover portions of Arkansas, Indiana, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, and West Virginia (collectively, “AEP” or the “Company”)

Principal investigator: Scott Osterholt, Director, Broadband and Telecom Business Development

Project title: AEP ADMS and DERMS Initiative

Objectives: AEP intends to implement an Advanced Distribution Management System (“ADMS”) with an operational Distributed Energy Resource Management System (“DERMS”) module (the “Project”). As part of this implementation, the primary network assets would be installed at AEP’s transmission control centers and would benefit AEP customers across Arkansas, Indiana, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, and West Virginia. The overall goal of the Project is to increase grid visibility and management of the Company’s distribution capabilities in order to improve service for AEP customers.

Description: ADMS is a software platform that supports distribution management and the optimization of the electric grid, including functions that monitor for outages and expedite outage restoration. In conjunction with ADMS, the Company is seeking to implement DERMS, a distributed hardware and software module. Operationally, DERMS provides administrative capabilities such as establishing distributed energy resource records, maintaining data, allowing visualization and management of distributed energy resources, and improving operations.

The Project would provide operators with a real-time view into the current state of the grid and would allow monitoring of key metrics to ensure the grid is performing at an optimal level. AEP’s ADMS and DERMS initiative would deliver optimized grid utilization, enhance storm preparedness, response and resilience, increase customer and employee safety, and promote customer affordability through system efficiency, while reducing carbon emissions.

Potential Impact: The Project would provide benefits across AEP’s customer base, 54% of which is in disadvantaged communities. While this does fluctuate across AEP’s OpCos and service territory, AEP estimates that avoided productivity loss through enhanced outage management resulting from the Project’s proposed System Average Interruption Duration Index (“SAIDI”) improvements could potentially generate as much as \$1.9B in savings to its customers over a 20-year period. Reducing restoration time of outages is a huge advantage to the health and safety of communities.