

Electric Vehicles: AEP Ohio's gridSMART Demonstration Project

Electric vehicle technology brings promises of increased performance and fuel economy, environmental benefits, and energy security. While there are nearly 20 electric vehicle (EV) models available today, and many more planned, the technology is still fairly new. Do EVs really live up to their potential? This presentation will provide an overview of electric vehicle technology and a current market analysis. Additionally, it will discuss results from AEP Ohio's gridSMART electric vehicle demonstration project, where some interesting information was derived from the 3 year project.

Integration of Advanced Metering Infrastructure and Outage Management Systems

Until recently, the only source of outage notification was through customer contact via telephone or internet. Typically the customer call-in rate is very low (approx 10%) and there is generally a lapse of time between the first and subsequent calls, depending on the time of day and the day of the week. This variability slows the restoration process as it is difficult to predict where the outage is occurring without a certain volume of customer calls. By leveraging the use of Advanced Metering infrastructure (AMI), utilities can now improve the speed and accuracy of outage prediction. This presentation will focus on a system that AEP developed to integrate AMI messages into its outage management system.

Chris Schafer, System Architect and EV Program Manager - American Electric Power

Chris Schafer currently works as a System Architect in the Distribution Engineering & Operations department at American Electric Power (AEP), where he is responsible for the integration of AMI and the outage management system. Additionally, Chris serves as the program manager for AEP's Electric transportation program. The program focuses on understanding value and impacts of electric transportation and how to prepare AEP's business and electrical system for the adoption of plug-in vehicles. Prior to his current positions, Chris performed similar research and program management work on a broad range of technologies such as energy storage, solar, wind, fuel cells, etc. Chris holds a bachelor's degree in Electronics Engineering Technology and a master's degree in Business Administration.

