

Distribution System Efficiency and Voltage Optimization for Rural Feeders

August 30, 2010 ♦ 12:00 – 2:00PM

Objective

Distribution system efficiency and voltage optimization are cost effective energy conservation measures. With an approved measurement and verification protocol that avoids lengthy field tests, the Bonneville Power Administration offers the Energy Smart Utility Efficiency program with incentives for its regional electric utility customers' distribution system efficiency efforts. Rural feeders present unique opportunities and challenges for distribution system efficiency and voltage optimization. BPA will present the design strategies concerning application of VO by utilities with rural feeders.

Content Overview

This presentation will share an understanding of BPA's Energy Smart Utility Efficiency program. It will address technical application strategies and design procedures necessary for distribution system efficiency and VO with rural feeders. Content includes:

- Historical background of VO and utility experiences
- Impact of lower voltage on end-use appliances
- VO misperceptions and implementation obstacles
- Overview of VO M&V Protocol and system thresholds
- Distribution system efficiency design process
- Characteristics of rural feeders
- System data required for efficiency design analysis
- Rural Feeder 'case study' describing VO applications
 - Data gathering and system modeling
 - Existing System threshold assessments
 - System improvements to meet thresholds
 - Pre-VO (Baseline) assessments
 - Post-VO assessments
 - VO Factor determination
 - Total energy saved estimation
 - Economic Life cycle Cost evaluation approach

Who Should Attend

Electric Utility Energy Efficiency Professionals
Electric Utility Standards Engineers
Distribution System Planners and Operators
Utility System Metering Personnel
Distribution System Protection (Relay) Engineers
Utility Resource Management Personnel
Electrical Utility Distribution System Design Consultants

