

COURSE DESCRIPTION

PME Elective Series – Configuring Meters and Communication Troubleshooting

Overview

This course introduces installing and setting up a metering system utilizing PowerLogic and ION hardware. Participants will identify and resolve meter setup issues, CT and PT wiring issues, and meter communication network issues. Participants will examine the capabilities of specific PowerLogic and ION meters and learn how to select the correct meter for different metering points in a facility. The ION Setup Utility will be used to display real-time data tables for the purpose of verifying that CTs and PTs are correctly wired to the meters. The ION Setup Utility will also be used to setup logging and event detection for each meter in the system.

Duration and Delivery Type

6 hours (9 a.m. – 3 p.m. CT), Virtual Instructor-Led Training (VILT)

Who should attend

Anyone who will be designing, installing, configuring, troubleshooting, or maintaining PowerLogic and ION power meters.

Prerequisites

- Basic computer skills and experience with Microsoft Windows
- Working knowledge and understanding of electrical terminology, concepts, and calculations. These should include an understanding of the relationships among current, voltage, power, and power factor in three-phase circuits

Students will be able to

- Determine the capabilities of specific PowerLogic and ION metering Devices
- Use the PowerLogic and ION meter front panels
- Use the ION Setup Utility to troubleshoot CT and PT wiring issues

- Use the ION Setup Utility to modify and save meter configurations
- Troubleshoot meter wiring and communication issues

Agenda

Course Introduction

- Overview of course topics and agenda

Introduction to PowerLogic and ION meters

- Overview of PowerLogic and ION meters
- Describe meter placement in systems
- Identify meter volts mode and wiring configurations

Familiarize and Use Meter Front Panels

- Navigate the display screens using virtual meters to view meter information
- Access the front panel setup menus to configure meter settings

Communications Between Metering and Software

- Review physical elements of communications networks
- Examine ethernet and serial configuration parameters

Introduction to ION Setup

- Understand the features and uses of ION Setup for meter configuration
- Install the ION Setup software package
- Practice connecting to both PowerLogic and ION meters

CT & PT Wiring

- Recognize proper meter readings based on wiring
- Understand three and four wire systems and associated phasor diagrams
- Practice troubleshooting and correcting meter wiring issues with phasors

ION Setup Data Validation and Time Synchronization

- Display real-time data from a meter using ION Setup software
- Configure time synchronization in PowerLogic and/or ION meters

Logging and Alarming Configuration

- Discuss meter logging quantities
- Review standard alarm lists and setpoints

Course Summary

- Answer any remaining questions
- Outline available resources for education going forward