

# **Print Reading and Electrical Circuit Troubleshooting Techniques**

## **Course Overview:**

This two-day class is intended serve as a refresher in substation print reading and be additional training for individuals who are responsible for substation operations and maintenance. Students will demonstrate their knowledge using simple to complex substation drawings in troubleshooting of substations.

## **Day 1:**

Emphasis will be placed on print reading and understanding substation one-line diagrams, three-line diagrams, manufacturers equipment drawings, electrical wiring and interconnect diagrams and electrical schematics. Students will be working with actual substation drawings and will be required to demonstrate to the instructor their ability to use one-line, three-line, electrical schematics, and interconnection diagrams. There will be individual as well as group exercises demonstrating student's ability to successfully use the various types of drawings.

## **Day 2:**

Students will build upon the knowledge gained on Day 1 by additional exercises using the various types of substation drawings in solving actual substation equipment problems. On Day 2, the instructor will introduce actual substation operational issues, and the students will have to solve, by the use of electrical drawings, and explain their steps in resolving various substation operational problems. Students will participate and work individually and in small groups on both days of the training. At the end of Day 2, students will participate in a final exam demonstrating the knowledge gained with this training.

## **Who should attend?**

Lineman, substation personnel and distribution engineers who have responsibility for the operation and maintenance of distribution and transmission substations.