



KINECTRICS

Introduction to Electric Utility Distribution Systems

Overview

This course presents an overview of the electrical engineering fundamentals and equipment used in the Distribution system of electric power utilities. The course would be useful to new utility staff, regulators and others who need a broad introduction. The topics covered include the basic engineering principles, design issues, standards and the major components used in distribution lines and transformer stations. Discussions are included on the types of loads and energy losses in the distribution of power to customers.

Course Outline:

Basic Principles of Electric Power Delivery

- Power, Energy, Power Factor
- Voltage Drop
- Three phase systems
- Standard Voltages
- Grounding
- Wye and Delta Connections

Components of a Distribution System

- Major Power System Divisions
- Electrical Components
- Mechanical Components

National and Industry Standards

- National Standards
- Industry Standards
- Utility Standards

Distribution System Design Issues

- Safety, Reliability, Power Quality, Cost
- Voltage, Current limits, Protection
- Line Topology

Types of Loads, Load Profiles and Load Factors

- Basic Load Types
- Load Profiles

Energy Losses and Loss Factors

- Sources of Energy Losses
- Estimation of Energy Losses

Energy Loss Reduction Techniques

- Techniques
- Effectiveness
- Financial Comparisons

Who Should Attend?

The audience for this course includes:

- Newly-hired engineers and technologists
- Regulators
- Major power customer engineers

Key Benefits:

Gain an understanding of:

- How power distribution systems are designed and how they work
- What standards are used
- Energy losses in distribution systems

Price:

One day - \$750 + GST

Complimentary lunch & coffee breaks

Instructors:



Ray Piercy, P. Eng. is an Associate Engineer in the Distribution Systems group. He has over twenty-five years experience in the analysis, modeling, monitoring, and testing of Distribution systems and components.

Register Now:

On-line: www.kinectrics.com

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