

# *Basic Electricity For Utility Personnel*

## **Know Your Commodity – Electricity!**

Many employees of electrical utilities have never had any formal training about **ELECTRICITY**. This course is designed to inform employees of electrical utilities about the commodity that they work with, sell, promote and use.

## ***Who Should Attend?***

Any employee that doesn't have a technical background – customer service representatives, communication specialists, web page editors, marketing representatives, and anyone that discusses your commodity with the public. This is also an excellent opportunity for all employees to brush up on their knowledge of electricity and a great chance to bring new hires up to speed.

## ***Seminar Instructor***

The instructor for this course will be Jim Allison. Jim has over 30 years of experience teaching in the area of electrical engineering at the University of Georgia in the Department of Biological and Agricultural Engineering, where he holds the title of Emeritus Professor. He has also taught continuing education courses to contractors, courses to electrical maintenance personnel at various industries across the southeast, and various courses to utility employees. Jim takes a hands on approach to his teaching and encourages his students to participate and learn.

## ***Seminar Cost***

If the Utility wants the class solely in house - \$2,000.00 – Lunch and breaks provided by Utility  
If the Utility wants to share with other Utilities - \$150.00 per person – Lunch and breaks provided  
Each student is provided class materials including a text.  
Eight hour Seminar: 8 AM – 12 Noon, Lunch, 1 PM – 5 PM  
Minimum Class size 15 students  
Maximum Class size 24 students

## ***Course Outline***

Understanding Electricity and Common Terms

What is Electricity?

How is Electricity Moved?

Types of Circuits

Types of Power

Understanding How Electric Energy is used in

Residential, Commercial, Industrial and Agricultural Applications

Appliances

Equipment

Motors

The Refrigeration Cycle – Heat Pumps

Understanding How Electricity is Used – Safety

National Electric Code

National Electrical Safety Code

Recognizing Typical Electrical Hazards

Addressing Safety Issues

- Emerging Technologies
- How Electricity is Generated
  - Water Power
  - Steam Power
  - Other Energy Forms
- Where does your Utility get its Electrical Energy?
  - Generated by the Utility
  - Purchased from other Utilities
- Determine Electrical Consumption and Cost
  - Using the Kilowatt-Hour Meter
  - Using the Check Meter Method
  - Rates Your Utility Uses
- How Electricity is Transformed, Transmitted and Distributed
  - How Transformers Work
  - Distribution and Transmission Lines
  - Standby Generators
- Environmental Protection
  - Heat Removal
  - Nuclear Waste

***A partial list of Georgia EMCs that have had employees attend the class.***

Jackson EMC	Mitchell EMC	Satilla REMC
Sawnee EMC	Blue Ridge EMC	Walton EMC
Little Ocmulgee EMC	Cobb EMC	Colquitt EMC
Flint EMC	Habersham EMC	Washington EMC

***Statement of Support***

“Through the years Jackson EMC has partnered with the SouthEastern Electrification Council to provide training for Jackson EMC Employees. The training has always been beneficial to our employees and the knowledge learned from these classes transfers to their everyday work tasks. Recently, SEEC conducted three Basic Electricity classes for approximately 35 of our employees. The classes were very interactive and received very positive comments from our employees. Handouts from the classes and multimedia enhance the classroom experience. The instructor, Dr. Jim Allison, was very organized and provided great interaction with the class.”

-- Jim Crawford, Director of Corporate Affairs