



Plain Talk about the Electric Power System

Education for Power Industry Professionals

**May 13-15, 2014 Tampa, Florida
Hyatt Place Tampa Airport/ Westshore**

*Registration Information on Page 5
Early Bird Registration Ends April 15*

THE ELECTRIC POWER SYSTEM enables our economy and society to function. In some way everything that impacts our lives, from where we live to where we work, from our government to our infrastructure, is dependent on a secure and reliable supply of electricity. Yet many individuals, including those who work in or with the electric power industry, do not have a basic understanding of the electric power system, how it operates or how it is evolving.

These courses aim to increase your understanding of the electric power system by providing you with practical knowledge that you can use as you work in or with this important industry.

Check out these exciting courses offered by the IEEE Power & Energy Society:

Our "Basics" Series For Non-Engineering Power Professionals

- **Power System Basics—Understanding the Electric Utility Operation Inside and Out**
- **Distribution System—Delivering Power to the Customer**
- **Transmission System — The Interconnected Bulk Electric System**

WHO SHOULD ATTEND:

PLAN TO ATTEND if you work within the power industry in a non-engineering capacity, or if you are a new power engineer or one transitioning to the power industry from another field. Others who would benefit from the course are those who work with the industry, such as utility board members, business executives, power brokers, power marketers, government officials, regulatory or legislative staff members, public affairs administrators, media professionals, attorneys, economists, accountants, or anyone with an interest in learning about the electric power systems upon which we all depend.





COURSE DATES, DESCRIPTIONS & INSTRUCTOR BIOS

PLAIN TALK Courses May 13-15, 2014 Tampa, Florida

May 13: Power System Basics—Understanding the Electric Utility Operation Inside and Out Jack Feinstein

The focus of this course is to provide a fundamental foundation in electric power systems, from basic formulas to the planning, operations, and equipment involved in generating, transmitting, and distributing electric power. Basic electrical terminology will be explained in simple to understand language with regard to design, construction, operation and maintenance of power plants, substations, and transmission and distribution lines. Anyone who is involved in some way with the electric utility industry can benefit from attendance at this course.

Topics covered in the course include an introduction to the fundamentals and basic formulas of electricity as well as the equipment involved in the electric power system. An overview of generation, substations, transmission, distribution, and utilization is provided. Protection, reliable operation, and safety are among the topics covered.



May 14: Distribution System—Delivering Power to the Customer Joseph L. Koepfinger & Maurice Ney

(Prerequisite for this course is Power System Basics or a familiarity with basic formulas and power system equipment.)

The focus of this course is to provide attendees with an overview of the issues associated with the planning, engineering, design, operation, and automation of electrical distribution systems. Types of distribution systems and network circuits, as well as engineering issues related to distribution systems will be explored. New concepts in the design, challenges, and operation of smart grid will be addressed. This course is intended for those who are not familiar with the delivery of electricity to the end user.

Topics covered in the course include an introduction to the types of distribution systems, issues associated with distribution planning such as outages and reliability, distribution engineering considerations relating to radial and secondary networks, and distribution automation. The course also provides an overview of electrical distribution operations, including the roles of utility personnel, construction and maintenance considerations, and trends in the industry. Smart grid and its impact on the distribution system will be explored.

May 15: Transmission System—The Interconnected Bulk Electric System Robert W. Waldele

(Prerequisite for this course is Power System Basics or a familiarity with basic formulas and power system equipment.)

The focus of this course is to provide participants with knowledge of how electric power is transferred from generation sources to distribution systems via the interconnected electric bulk power system known as "the grid." Basic physical laws governing the grid will be introduced, as well as the regulatory agencies involved in its governance. The great blackouts will be explored. This course is intended to increase participant's understanding of the electric grid and how it functions in the electric power system.

Topics covered in the course include an introduction to the fundamental concepts of power, energy, and power system stability as they relate to the grid. The grid is explored in terms of its interconnections, power flow, North American interconnections, and governing bodies such as NERC/ERO, ISOs, and RTOs. Reliability standards and contingency analysis are addressed. Issues related to the planning and operation of the grid, such as transmission and economic constraints, determining transmission transfer capability, and dealing with congestion are reviewed. The course also discusses the great blackouts, their root causes, and lessons learned.

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Jack Feinstein provides consulting services to organizations associated with the electric power industry. His experience includes over 30 years with Consolidated Edison of NY, Inc., the last seven years as a vice president. After his retirement in 1998, he became an independent consultant. His Consolidated Edison experience includes serving as vice president of System & Transmission Operations with responsibility for the operation of the electric bulk power system. A sample of his work career at Con Edison included being promoted to chief system operator, general manager of System Operation Dept. and plant manager of the Arthur Kill Generating Station. Feinstein is a 1965 graduate of the City College of New York with a BS degree in Electrical Engineering. He is a registered Professional Engineer in the State of New Jersey and a senior life member of the IEEE. He was a member of the New York Power Pool (NYPP) Operating Committee from 1982 until his retirement and is a recognized expert in the reliable and safe operation of the electric power system. He has authored operating procedures for both Consolidated Edison as well as the NYPP. He served as a member of the Reliability Coordinating Committee (RCC) of the Northeast Power Coordinating Council. Feinstein is a contributing author of the book, "Seeds of Disaster, Roots of Response - How Private Action Can Reduce Public Vulnerability," Chapter 12 – "Managing Reliability in Electric Power Companies," published by Cambridge University Press in 2006. He presently serves as the Chairman of the Engineering Leadership Council of the CCNY - Grove School of Engineering.

Joseph L. Koepfinger is a consultant with 51 years of utility experience, recently retired from Duquesne Light Company. In his last position he was Director of System Studies and Research, where he was responsible for managing the research programs. While employed at Duquesne he was responsible for the conduct of special investigations of technical problems, insulation coordination, surge protection and, in particular, the studies of electrical transient conditions in power systems. Recent investigations under his leadership involve the study of the characterization and management of electromagnetic fields, cable failure, manhole explosions, transformer fire control, interconnection of distributed resources and advanced outage management systems. He has worked in the fields of protection, communications and control, and surge protection. He holds a Bachelor of Science and Master of Science in Electrical Engineering from the University of Pittsburgh. He is a licensed professional engineer in the state of Pennsylvania and a Certified Cogeneration Professional.



Maurice Ney has extensive experience in operations, engineering, planning, and customer care. He has a proven record of achieving continuous improvements in process, costs, system improvements, and customer satisfaction. In addition he has significant experience in managing transmission and distribution operations in the utility industry. As an independent consultant on utility operations, he has worked as a team member on projects for utilities in the Northwest and on the East Coast performing evaluations of current state transmission and distribution operations and the design of future state processes for improved performance and reliability. He has worked with the Electric Power Research Institute as a technical consultant on outage management, recovery and disaster planning, strategic planning and development of technical specifications for the design of an Advance Outage Management System, and the development of key initiatives targeted at the prevention of, preparedness for, and recovery from man-made and natural disasters and the major electric power outages that can accompany them. He has held various engineering and management positions at a major electric utility. During this time, he has actively participated in the development of a \$150 million capital and operating budget, developed an incentive compensation model based on profitability and customer satisfaction, developed strategies for complying with state and federal regulatory agencies, and assisted in the development of a process-focused organization and strategies to attain top quartile performance as defined by customer satisfaction cost/customer, and reliability. He received a Bachelor of Science degree in Electrical Engineering from Pennsylvania State University and he is a licensed professional engineer in Pennsylvania.



COURSE DATES, DESCRIPTIONS & INSTRUCTOR BIOS

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Robert W. Waldele is a power system consultant with over 35 years of experience in EHV transmission system reliability studies, power system operation, and system operator training. He holds a BSEE from Northwestern University Technological Institute (McCormick School of Engineering). Bob joined the New York Power Pool in 1972 in the energy management system support group. As a Senior Engineer in Transmission Planning he coordinated system planning and reliability studies for the coordination of the bulk transmission system in New York State. While there he also served as Manager of System Operator Training and developed the transition program to open access and market operation under the New York Independent System Operator, Inc. (NYISO). Following NYISO start-up, he was named Manager of the NYISO Operations Engineering group and the electric System Planning department. He has served on a number of working groups under the Northeast Power Coordinating Council, including Special Protection Systems, Interconnected System Dynamics, Dynamic Controls and System Operator Training. He was a member of the New York State Reliability Council's Reliability Rules Subcommittee. He has been an active participant in IEEE working groups including Transmission Subcommittee, Power System Dynamics, and the Operator Training Working Group. He served on the US- Canada Joint Task Force August 14, 2003 Blackout investigation "Operator Tools, Training & EMS Performance Evaluation" team, and supported the Sequence of Events and Root Cause Analysis teams.



See Page 5 for Registration Form and Details!

Early Bird Ends April 15

PES Plain Talk courses for the power industry professional will help you to understand technical aspects of the electric power industry, even if you do not have an engineering background. You will gain insights into the concerns of engineers, the demands of regulators and consumer groups, and the factors and trends that impact the operation of today's electric power systems. These courses are also appropriate for new engineers to the industry, or for engineers in other fields who are transitioning to the electric power industry.

Continuing Education Credits (CEUs)

Each Plain Talk one-day course is eligible for 0.8 CEUs (equivalent to 8 Professional Development Hours, or PDH). Participants who complete the full three day series are eligible to earn 2.4 CEUs (equivalent to 24 PDH).

Breakfast, lunch and snacks are provided each day.



Plain Talk about the Electric Power System

May 13-15 2014

Hyatt Place Tampa Airport/ Westshore
4811 West Main Street Tampa, FL 33607

Name _____ Company _____ Title _____

Street _____ City _____ State _____ Zip _____

Phone _____ Fax _____ Email _____

EARLY BIRD DISCOUNTS: An early bird 10% discount is offered to attendees who register and pay on or before April 15, 2014.

GROUP DISCOUNTS: 10% discount offered to two or more conference registrants from the same company or organization. Contact LaToya Gourdine (l.gourdine@ieee.org, 732-981-2876) for discount code prior to online registration.

FEE INCLUDES: continental breakfasts, lunches, refreshment breaks and all course materials.

1-CHOOSE YOUR ENROLLMENT OPTION:

THREE COURSE ENROLLMENT (please check the appropriate box)

- Early Bird Fee** (paid registration on or before April 15, 2014) - \$1,935
- Regular Fee** (paid registration after April 15, 2014 and on site) - \$2,150
- Group Rate** (10% discount from Early Bird or Regular Fee)

On or before April 15, 2014: \$1,742 per person After April 15: \$1,935 per person Group Name: _____

TWO COURSE ENROLLMENT (please check the appropriate box)

- Early Bird Fee** (paid registration on or before April 15, 2014) - \$1,360
- Regular Fee** (paid registration after April 15, 2014 and on site) - \$1,510
- Group Rate** (10% discount from Early Bird or Regular Fee)

On or before April 15, 2014: \$1,224 per person After April 15: \$1,360 per person Group Name: _____

ONE COURSE ENROLLMENT (please check the appropriate box)

- Early Bird Fee** (paid registration on or before April 15, 2014) - \$715
- Regular Fee** (paid registration after April 15, 2014 and on site) - \$795
- Group Rate** (10% discount from Early Bird or Regular Fee)

On or before April 15: \$644 per person After April 15: \$715 per person Group Name: _____

2-CHOOSE YOUR COURSE(S):

- Power System Basics Transmission System Distribution System

TO REGISTER ONLINE, AND TO FIND INFORMATION ON LOCATION AND ACCOMMODATIONS:

<http://www.ieee-pes.org/plain-talk-in-tampa-may-2014>

OR

- Mail to: IEEE-PES Plain Talk, 445 Hoes Lane, Piscataway, NJ 08854
- FAX to: (732) 562-3881

Check (Payable to IEEE-PES)

Purchase Order—Please attach a copy of the Purchase Order along with your registration form.

Credit Card: _____ VISA _____ MasterCard _____ American Express

Card # _____ Exp. Date _____ Security Code: _____

Name on Card _____ Authorized Signature _____

Address and Phone Number of Card Holder: _____

TOTAL ENCLOSED \$ _____

Please contact LaToya Gourdine (l.gourdine@ieee.org, 732-981-2876) for additional information.

Cancellations made in writing prior to April 29, 2014 will be fully refunded, less a \$50 cancellation fee. There will be no refunds after April 29, 2014. If an enrollee is unable to attend, the fee may be used by a substitute, or for enrollment in a future course. In the unlikely event of an event cancellation, registrants will receive a full refund for the cost of registration only.