EUCI COURSE

ELECTRIC UTILITY SYSTEMS 101 - MEXICO

May 22-23, 2017
Sheraton Santa Fe Hotel
Mexico City, Mexico

AUTHORIZED IACET PROVIDER

EUCI is authorized by IACET to offer 1.2 CEUs for this course

OVERVIEW

As the Mexican energy reform entirely reshaped what used to be a closed-door monopoly, it created an opportunity for non-technical professionals to participate in a new market. The economy has taken a major shift with the creation of new electric infrastructure through foreign investment, developments in international relationships through cross-border electric transactions, and new positions and market demands within the industry.

Electric Utility Systems 101 will provide a comprehensive overview of the fundamentals of electric systems to give non-technical professionals the ability to get involved in the market shift. This background information will cover the full process of electricity generation through to the end-user, provide an overview of the equipment, infrastructure, and processes necessary, and will consider what else the reform might bring for the economy. An understanding of these concepts will provide a role for consultants, law firms, communication specialists, administrative professionals, materials and equipment providers, financial analysts, and accountants getting involved in this rapidly changing sector.

Note: The course will be presented in English

LEARNING OUTCOMES

- Define electric industry terms and the process of creating power through to the end-user
- Analyze the changes to the Mexican electric system, and how these market shifts affect all electric professionals involved in the industry
- Assess the sources of power generation in Mexico and review how each system works
- Compare the functionalities of transmission and distribution systems, and the necessary equipment and infrastructure to deliver power to the end-user
- Describe the function of substations between transmission and distribution infrastructure
- Leverage your understanding of power systems to review the integration and interconnection of the grid, and the cross-border energy trade
- Evaluate the modern utility environment, the reliability of the grid, and the evolution of electric sources in the Mexican market

WHO SHOULD ATTEND

- New employees in generation, transmission, or distribution requiring an understanding of how electric utility systems function through all steps in the process
- Non-engineers entering the electric sector focused on administrative, legal, financial, and customer and public relations responsibilities
- Attorneys and accountants specializing in the electric industry in need of a background to provide better services to their clients
- Material and equipment providers serving the electric power industry to learn their basic needs
- Investors and financial analysts looking for opportunities in the electric utility sector and to participate in the shifting market structure
- Regulators and legislators managing regulatory and compliance concerns in the electric power industry

COURSE TIMING

MONDAY, MAY 22, 2017

7:30 – 8:00 am	**Registration and Continental Breakfast**
8:00 am – 5:00 pm	**Course Timing**
12:00 – 1:00 pm	**Group Luncheon**

PROGRAM AGENDA

Introduction to Basic Electricity
- Overview of electricity terminology
- Power system components and necessary infrastructure
- Process from generation through to the end-user

Fundamentals of the Electricity Industry Act
- Overview of the Mexican power system
- The open market and competitive generation
- Power trading and the wholesale market
- Notable regulations for 2017

Power Generation
- Breaking down generation types: oil and gas, renewables, fossil fuels, nuclear, and geothermal
- Generational makeup in the Mexican power market
- Design of a typical power plant
- Baseload, intermediate, and peak
- Generation capacity and efficiency
- Variable and fixed plant costs per each plant type

Transmission
- Function, voltage, and capacity of transmission infrastructure
- Structural design and the necessary equipment
- Underground transmission systems
- Conductors and insulation in wiring
- Overvoltage switches

Substations
- Functionality between transmission and distribution
- Design of stations and equipment outline
- Types of transformers
- Step-down and step-up
- Regulating voltage
- Technology and analysis

Distribution
- Overhead and underground distribution systems
- Regulated voltage and capacity for consumer, commercial, and industrial use
- System components and connections
- Voltage classes and design options, and attributes of each

COURSE TIMING

TUESDAY, MAY 23, 2017

7:30 – 8:00 am	**Continental Breakfast**
8:00 am – 12:00 pm	**Course Timing**

PROGRAM AGENDA

System Integration and Operation
- Interconnection and national infrastructure
- Power consumption and demand response
- Overall system efficiency and system protection
- Electric power metering and net-metering

Modern Utility Environment
- The competitive market structure
- Importing and exporting energy, and the North American cross-border power system
- Meeting peak consumer demand as it rises every year
- Aging infrastructure and the need for investment
- Monitoring carbon emissions

INSTRUCTOR

Dr. Guillermo Gutiérrez -Alcaraz

Professor, Department of Electrical Engineering and Electronics, Morelia Institute of Technology

Dr. Gutiérrez Ph.D. is a professor in the department of electrical engineering and electronics at the Morelia Institute of Technology. He has 22 years of experience in electrical engineering relating to power systems, both as a professor and a professional consultant in the industry. His experience covers operation and control of electric power and distribution systems, pricing of electricity services, the deregulation of electric power, and smart grids as it relates to the market restructuring in Mexico. In his professional career, he has published 23 journal papers and 60 international conference papers on the complexities of the electricity markets and power systems. As a consultant, he has been a part of the market restructuring through his work with CENACE, CFE, and CRE. Dr. Gutierrez is an association member of IEEE and the Mexican Researchers System.

REGISTRATION
to register CLICK HERE or

Call: 201 871 0474
fax: 253 663 7224
email: register@pmaconference.com/
web: http://pmaconference.com/
Mail: POB 2303 Falls Church Va 22042

REQUIREMENTS FOR SUCCESSFUL COMPLETION OF PROGRAM

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

INSTRUCTIONAL METHODS

PowerPoint presentation and group discussion will be used in this program.

PROCEEDINGS

The proceedings of the course will be published, and one copy will be distributed to each registrant at the course.

EVENT LOCATION

A room block has been reserved at the Sheraton Santa Fe Hotel, Mexico City, Guillermo González Camarena 200, Zedec Santa Fe, Álvaro Obregón 01210, for the nights of May 21-23, 2017. Room rates are $190 USD, plus applicable tax. Call **+52 55 5258 8500** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is April 23, 2017 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***

IACET CREDITS

EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

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PLEASE REGISTER

○ **BOTH ELECTRIC UTILITY SYSTEMS 101 AND INTRODUCTION TO MARKETS COURSES**
May 22-24, 2017: US $2095
Early bird on or before May 5, 2017: US $1895

○ **ELECTRIC UTILITY SYSTEMS 101 COURSE**
May 22-23, 2017: US $1195
Early bird on or before May 5, 2017: US $995

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name | Job Title

Company

What name do you prefer on your name badge?

Address

City | State/Province | Zip/Postal Code | Country

Phone | Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card | Account Number

Billing Address | Billing City | Billing State

Billing Zip Code/Postal Code | Exp. Date | Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

OR Enclosed is a check for $ _____ to cover _____ registrations.

Substitutions & Cancellations
Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before April 21, 2017 in order to be refunded and will be subject to a US $195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.