



RE048: Electricity Planning

Training Description:

This intensive training course will equip participants with the knowledge and skills necessary for effective electricity planning. Participants will gain a comprehensive understanding of the electricity sector, including generation, transmission, distribution, and demand forecasting. They will learn about various planning methodologies and tools used to ensure a reliable and secure electricity supply. The training course will also cover key considerations for integrating renewable energy sources into the grid.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Gain a comprehensive understanding of the electricity sector structure
- ✓ Apply knowledge of electricity generation, transmission, and distribution systems
- ✓ Develop skills in electricity demand forecasting
- ✓ Master various electricity planning methodologies and tools
- ✓ Analyze the challenges and opportunities of integrating renewable energy sources
- ✓ Formulate effective strategies for ensuring a reliable and secure electricity supply

Training Designed for:

This course is intended for Engineers working in power transmission and distribution companies, Utility planners and regulators, Government officials involved in energy policy development, Consultants working in the energy sector and Investors interested in the electricity market.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

FIVE DAYS:

- ❖ **Introduction to Electricity Systems**
 - Overview of the electricity sector structure (generation, transmission, distribution)
 - Power system components and their functions
 - Introduction to electric power concepts (voltage, current, power)
 - The role of planning in the electricity sector
- ❖ **Electricity Demand Forecasting**
 - Factors influencing electricity demand (weather, economic growth, population)
 - Types of demand forecasting methods (short-term, long-term)
 - Data analysis techniques for demand forecasting
 - Demand forecasting tools and software
- ❖ **Electricity Generation Planning**
 - Types of electricity generation technologies (fossil fuels, nuclear, renewables)

- Capacity planning considerations (reserve margins, plant reliability)
- Generation expansion planning methods
- Environmental considerations in generation planning
- ❖ **Electricity Transmission and Distribution Planning**
 - Transmission system planning principles (power flow analysis, system stability)
 - Distribution system planning considerations (load growth, voltage regulation)
 - Investment planning for transmission and distribution infrastructure
 - Smart grid technologies and their role in planning
- ❖ **Integration of Renewable Energy Sources**
 - Challenges and opportunities of integrating renewable energy sources
 - Impact of renewables on electricity system planning and operation
 - Planning methodologies for accommodating renewable energy
 - The future of electricity planning in a sustainable energy landscape
- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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