

Course Overview:

Industrial plants, facilities, research parks and centers, medical campuses, hospitals, and large and small commercial facilities are often excellent candidates for the use of cogeneration technologies and distributed generation. Frequently, facilities with electrical demand and large seasonal load variations, such as food processing plants or institutions with large air conditioning loads, can benefit from implementing these technologies. In this course, system cost guidelines along with a discounted cash flow economic computer model will help you to evaluate internal rate of return and payback periods

Course Objective:

- Expand your knowledge of current cogeneration technologies, distributed generation, combined heat and power (CHP) plants and micro-turbines
- Understand the combination of heating, cooling and power loads and how to optimize their time-of-use characteristics
- Examine the economics of typical installations using gas turbines, internal combustion engines and steam turbines
- Learn how to conduct a feasibility analysis and make realistic and successful economic decisions

Course Outline:

- Introduction To Cogeneration
- Why Is Cogeneration So Efficient?
- Heat-To-Power Ratio
- Cogeneration Equipment – Combinations
- Cogeneration In Industries
- Cogeneration Technology
- Factors For Selection Of Cogeneration System
- Techno-Economic Advantages Of Cogeneration Technology
- How To Measure Analyzing Cogeneration Feasibility By Level
- Introduction To Cogeneration Steam Turbine Technology
- Internal Combustion Engine: Generators
- Cogeneration With Gas Turbine Cycle
- Power Generation

Who Should Attend:

This course will help facility engineers and managers and consulting engineers to plan, select and evaluate the best combined heat/cool/power plant using distributed generation and cogeneration technologies. Utility managers and engineers will gain an understanding of various CHP and cogeneration applications to support customer needs and interests.

Training Language:

EN / AR

Training Methodology:

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation