

ENERGY MANAGEMENT

ONE-DAY COURSE

PROGRAM

Energy Management *Course Program*

- 9:00 a.m. Opening Remarks**
- 9:10 a.m. Introduction: Energy Management Overview**
- Why do energy management
 - Energy management overview
 - Project execution
- 9:30 a.m. Successful Energy Management Program**
- General principles
 - Barriers to energy management
 - The Team
 - The Action Plan
 - The Approach
 - Self evaluation
- 10:00 a.m. Identification of Energy Efficiency Opportunities**
- Checklists
 - Case studies
- 10:15 a.m. Coffee Break**
- 10:30 a.m. Quantification of Energy Efficiency Opportunities**
- Compressed air systems
 - Waste heat recovery
 - Thermal insulation
 - Exhaust air recirculation
 - Adjustable speed drives
 - High efficiency lighting
 - Power factor correction
 - Electrical load management
- 12:00 p.m. Lunch Break**
- 12:45 p.m. Quantification of Energy Efficiency Opportunities (cont'd)**
- Thermal Storage
 - Case definition
 - Equipment sizing
 - Case studies

1:15 p.m.

- **Cogeneration**
 - Objectives
 - Types
 - Schemes
 - Feasibility studies
 - Examples

1:45 p.m.

Greenhouse Gases Reduction

- Greenhouse effect and global warming
- Global response and individual response
- Baseline definition
- Emission factors and emission coefficients
- Trading mechanisms

2:15 p.m.

Coffee Break

2:30 p.m.

Economic Analysis

- Simple payback
- Return on investment
- Benefit/cost ratio
- Internal rate of return
- Net present value and discounted cash flow
- Monte Carlo-based certainty analysis
- Examples

3:30 p.m.

Energy Analysis

- Objectives
- Types of analyses
- Structure of the analysis
- Procedures employed
- Examples

4:00 p.m.

Closing Remarks