

## Energy Efficient Building Operations

Energy efficiency is foundational to the financial and environmental performance of buildings. Understanding energy efficiency is necessary to ensure high quality operations and maintenance of buildings.

This class covers the fundamentals of building energy performance, including how to benchmark and assess performance levels, comparing buildings in a portfolio, how utilities charge for energy use, key energy-efficient operating strategies, new technology developments and opportunities for capital retrofit projects. Anyone responsible for operations or maintenance of building energy-using systems should attend

Duration: 8 Hour Program

### **ENERGY PERFORMANCE BENCHMARKING**

Metrics for all Building Types  
Metrics for Data Centers  
ENERGY STAR Benchmarking

### **UNDERSTANDING UTILITY RATES**

Incremental Rates  
Time-of-Use  
Real Time Pricing

### **KEY OPERATING STRATEGIES FOR ENERGY EFFICIENCY**

Scheduling  
Minimizing Parasitic Energy Loads  
Part Load Operation  
Sequencing Multiple Pieces of Equipment  
Set Points and Reset Strategies  
Application to Chiller Plants  
Application to Air Distribution Systems  
Application to CRAC Units

### **ENERGY RETROFIT OPPORTUNITIES**

Lighting and Lighting Control  
Variable Frequency Drives  
New Chiller Technology  
Heat Recovery  
Advanced Controls

### **POTENTIAL FOR ONSITE GENERATION**

Fuel Cells  
Solar Power