

Effective Energy Management in New and Existing Buildings (MENA)

In recent years, energy consumption in the Middle East is rising exponentially due to rapid industrialization and high population growth rate. The level of energy consumption in the MENA region is one of the highest worldwide. However, the efficiency of energy production and consumption patterns in the region requires significant improvements.

As a result, the ASHRAE Global Training Center developed an energy management course that offers techniques for the adoption of energy optimization, and the introduction of specialized energy-saving systems in the Middle East region. The course weaves together energy management principles of the *ASHRAE Handbook—HVAC Applications*, ENERGY STAR guidelines, and ASHRAE Standard 100-2018, *Energy Efficiency in Existing Buildings* that guides organizations in reducing overall energy costs, carbon emissions, and energy risk.

The course provides numerous how-to solutions for successful energy managers that achieved a reduction in energy consumption by implementing sustainable energy technologies. These solutions demonstrate how to take advantage of the ENERGY STAR Portfolio Manager for documented performance tracking and recognition as an ENERGY STAR in a hospital, high-rise building, bank, and a convention center.

Among other course features are ten interactive exercises that uses data loggers to collect data during the course to demonstrate real-time logging of CO₂, light, temperature, and relative humidity in the classroom, and the best ways to use data-logging instruments.

Course Topics:

- Introduction to energy management
- Why commit to energy management?
- Assessing performance and setting goals
- Action plans: ideas and a test method
- Limit contaminants from indoor sources
- Evaluating results, including adjusting for weather
- Energy management summary
- What can you do, starting next week?

Course Objectives:

- Describe the ENERGY STAR® management cycle
- Analyze basic billing and load profile information
- Interpret weather-adjusted energy data
- Distinguish between Levels I, II, and III of a commercial building energy audit
- Identify opportunities for energy savings in your buildings based on course suggestions
- Develop an action plan to get started, targeting
 - o preliminary energy analysis or
 - o a test of discretionary facility operation