



Fine-tuning the heat in multifamily buildings

Case Study

Company Name:
Prestige Management

Business Type:
Multifamily

Location:
New York, New York

BY THE NUMBERS:

20 buildings

23 employees trained

Diverse audience:
0 to 33 years of
building operations
experience

Overview

The New York State Energy Research and Development Authority (NYSERDA) and the Association for Energy Affordability (AEA) completed a building operator training demonstration project with Prestige Management, Inc. — a real estate management company in New York City. The project explored the impacts of customized energy efficiency training for proper understanding and use of building controls on different types of heating systems.

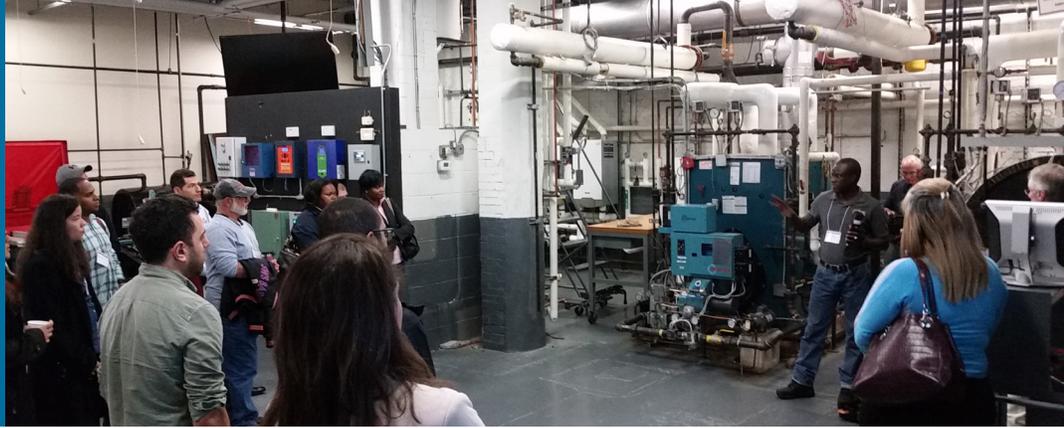
Smart Investments in Operations and Maintenance

Building operators are key to keeping buildings running smoothly and performing at their best. Smart building owners know that skilled building operators can find problems early, before they become a major complication and expense. Prestige Management recognizes that a well-designed, well-implemented building operations and maintenance training program will extend equipment life, reduce operating costs, maintain energy efficiency, and improve overall building conditions and occupant experience.

Targeted Training

AEA worked with Prestige Management to design a training program that focused on their highest building operations priorities—heating systems and building controls—and fit into the busy work schedules of building operators and managers. The training was a three-day condensed version of standard building operator training, with a heavy focus on heating systems and energy management system (EMS) equipment optimization. Managers and building operators participated in the training sessions.

AEA's heating and cooling lab lets students directly see systems in action. The boiler lab includes heating, cooling, and domestic hot water-making equipment, energy management systems, and other controls. High-definition video allows students in remote classrooms to participate in this experience. The lab also features a functional gas-fired hydronic condensing boiler and furnace equipment, ductwork, and inverters connected to AEA's rooftop Solar PV arrays.



What Was Learned

Part of condensing the training curriculum consisted of holding separate sessions for operators with steam heating and hot water systems. Topics specific to each heating system type did not need to be covered in full in all sessions. The training covered the following:

- Operations and maintenance processes
- Developing an energy master plan
- Building science basics (e.g., energy and heat, heat transfer in buildings, air sealing priorities, moisture transport in buildings)
- Combustion science and boiler and burner basics
- Hydronic heating system operation and maintenance or steam heating system operation and maintenance
- Energy management systems for hot water boilers or energy

“I am responsible for 80 boilers. This was a great class and made me more appreciative of the need for energy efficiency”

— Prestige Property Manager

Results

All training participants surveyed indicated that the training met or exceeded their expectations, with nearly two thirds indicating it “far exceeded expectations.” Building operators described an improved understanding of their building systems and an increase in awareness and appreciation for energy efficiency best practices.

Following the training, Prestige Management incorporated a checklist focusing on best practices related to EMS operations at their buildings.

On average, buildings with trained operators reduced their heating energy use by 5% when compared to the prior year.

Energy savings varied widely between buildings, as building operations and energy use can be affected by many factors. This demonstration project shows overall positive results for energy-use reductions following the training. Training helped to spark improvements in building operations, implementation of best practices, and energy efficiency awareness, which continues to resonate across the entire portfolio of buildings.

Next Steps

Based on the success of the initial training sessions, AEA and Prestige Management are expanding their building operator training program with the assistance of NYSERDA. They will be training an additional 51 operators through a comprehensive four-part energy efficiency training series for additional operations improvements.

Learn more about clean energy workforce development opportunities with NYSERDA

Visit: nyserderda.ny.gov/wfd

Email: wfinfo@nyserderda.ny.gov for information

