Building retuning is trending in Capital Region schools

Case Study

Company Name:
CUNY Building Performance Lab

Business Type:
Schools

Location:
New York, New York

Overview

The New York State Energy Research and Development Authority (NYSERDA) and the City University of New York Building Performance Lab (CUNY) worked with two Capital Region school districts to train and coach their building operators on the principles of building retuning, a process of highly effective ongoing commissioning for HVAC equipment and systems. This program motivates and enables building operators to investigate their building systems' operation and fine-tune equipment operations to save energy, and in many cases, improve comfort.

Improved Operations Starts with Knowledge

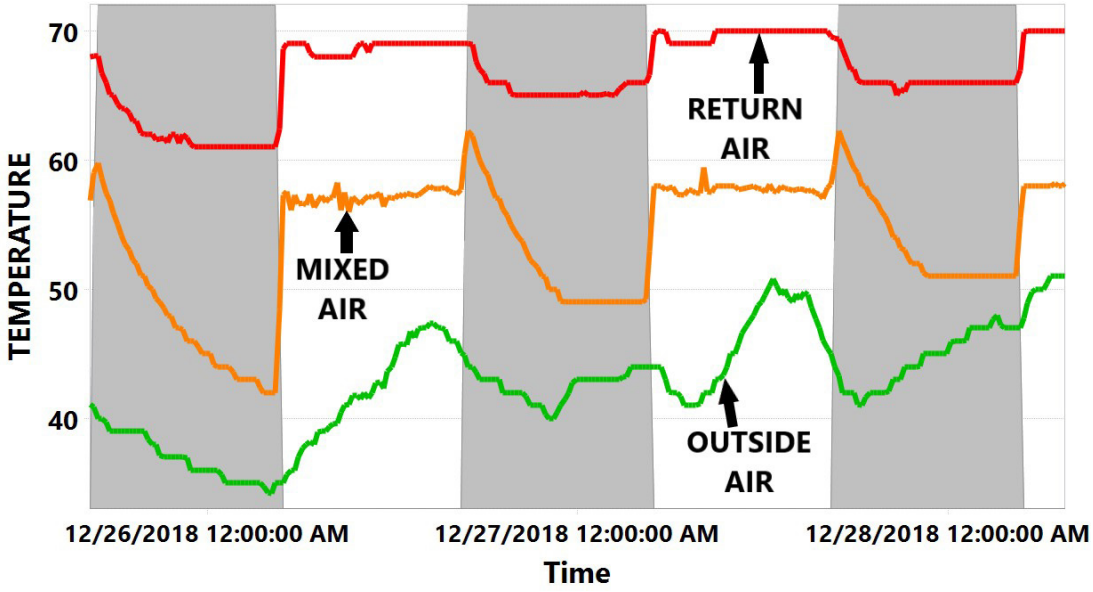
Investing in building technicians, engineers, and maintenance staff is a proactive approach to building operation and maintenance. Buildings with Building Automation Systems (BAS) offer a wealth of data related to system performance and energy use, but corrections and improvements are realized only if the operators are able to see the meaning in the data. Building retuning helps operators connect the dots between the data and the opportunities for improved operation of mechanical systems.

Customized Training and Coaching

CUNY worked with facility staff in the Ballston Spa and Saratoga Springs school districts to instruct them on building retuning and how to interpret data from their BAS. The training included lectures, classroom activities, on-site and remote support, and collaborative analysis. Using actual BAS data from their buildings, they found several opportunities to improve building system operations. Building staff learned skills to monitor, diagnose, and improve the performance of their systems in the future by using data from their BAS.

Sample Data Visualization and Interpretation Class Activity

Is this effective or ineffective operation? Why?



"...participants significantly increased confidence in their understanding of building systems, including how changes to their system operating parameters affect building performance."

— CUNY Building Performance Lab

Lessons Learned

Building operators became more actively engaged in reviewing their HVAC and mechanical systems on a regular basis. They gained:

- Improved understanding of building systems and control sequences
- Increased knowledge of using their BAS, including the ability to save and share trend data
- A new appreciation of BAS for diagnostics, troubleshooting, and experimentation well beyond using it to review system status and change set-points
- Confidence to make adjustments within the BAS for improved equipment performance and energy efficiency

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