buildpulse
building analytics simplified

Case Study: How Energy Managers use BuildPulse to hit goals

A new addition to the team at Macalester College

Macalester College, a liberal arts school in St. Paul, Minnesota, has made many commitments to creating a more sustainable campus in recent years. To help drive this change, Macalester recently hired its first Energy Manager, whose primary focus is lowering energy expenditures on campus through daily operations and special initiatives. With his background in energy management and auditing BAS systems, Macalester chose Mike Pumroy to fill the position and take the lead on attaining the school's "goal of lowering energy expenditure by 3% per year over the next 5 years." Using BuildPulse to augment the existing BAS on campus, Mike's day-to-day requires him to make informed recommendations to Macalester's Facilities Services staff, which are essential to achieving this goal.

Open conversation with actionable data

"It's definitely a conversation starter. There's nothing like an image to make an impact compared to just a discussion." - Mike Pumroy

The team at Macalester uses BuildPulse as a tool to identify and visually represent HVAC equipment performance issues happening on campus. For example, BuildPulse's Issues reporting feature has identified HVAC equipment that was operating continuously, variable frequency drives serving air handling units that were continuously running at 100% speed, and an outdoor air temperature sensor used for control of air handling unit economizer set points across campus that was out of calibration.

Use data to focus your capital expenditures

"The data's there and I can run it on the fly." - Mike Pumroy

There are many ways to approach any problem on campus - the key is to find the solution that's efficient, attainable, and clear. After identifying an issue in exhaust fan operation Mike wanted to quickly audit the rest of the exhaust fans in the same building for similar issues. Using custom reports, Mike could select all of the same type of sensors in a few minutes and immediately identify significant potential savings. It became clear that the installation of occupancy sensors would make a big impact, potentially generating "thousands of dollars of savings per year just by implementing occupancy-based control strategies". This use of data has proven to be a valuable method for identifying and evaluating the payback for new projects.

Finding opportunities to make a difference

"These are trending capabilities that I haven't seen in other systems." - Mike Pumroy

The ability to see historical trends in buildings on campus has enabled Macalester's Energy Manager to identify equipment that isn't running properly to prioritize energy conservation initiatives, and help the facilities team at Macalester notice recurring problems.

BuildPulse is on your team

"BuildPulse has been great and responsive. I have to say it's a big deal for them to take that initiative to teach the features and capabilities for BuildPulse." - Mike Pumroy

With customer success as the top priority, BuildPulse dedicates the time to educate users, introduce new features according to user needs, and aid in identifying issues and troubleshooting on campus. With bi-weekly meetings and on-call customer service, BuildPulse and Macalester make an effective team with contributions from diverse perspectives. This user-friendly approach means that a background in analytics isn't required to get the most out of the tool.

MACALESTER COLLEGE

Findings at a glance

Buildings
22 buildings with partial integration and 1 building with full integration to BuildPulse selected on the Macalester College campus

Square Footage
1,400,000 total square footage, 175,000 Sq. Ft. fully integrated

Issues
- Constantly running equipment
- Variable Frequency Drives running continuously at 100%
- Air handling unit Economizer setpoints not optimized
- Sensor calibration issues

Results
- Significantly decreased run times
- Low hanging fruit for capital expenditures identified
- Demonstrated success through data

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