CLOCKWORKS SUCCESS STORY
DATA-DRIVEN "BLITZ" APPROACH

PROJECT AT A GLANCE

LOCATION
Pacific Northwest, USA

FACILITY
Medical Office Buildings

FLOOR AREA WITH EMIS
500,000 ft2

ENERGY SAVINGS
$42k in annual savings and 85% reduction in daily avoidable energy costs

SITE IMPACT
70% reduction in identified comfort and maintenance issues

SERVICE PROVIDER
Clockworks Analytics

EMIS TOOLS
Clockworks

RESULTS
As a result of the three-week blitz, the building group has seen a 70% reduction in the number of maintenance and comfort related diagnostic issues, with identified avoidable costs reduced by 85%.

INTRODUCTION

In January 2020, a national hospital group leveraged fault detection and diagnostics (FDD) software to help them conduct a "blitz" to address the most pressing mechanical and controls issues across four medical administration buildings. This effort yielded impressive results in just 3 short weeks. A total of 849 tasks were completed, resulting in over $42k in annual savings and a 70% reduction in identified comfort and maintenance issues.

WHAT IS A BLITZ?
More commonly known as a football reference, a 'Building Blitz' is when an organization puts a large amount of resources into a building (or subset of buildings) for a short, defined period of time with a clear plan and direction to fix a specific set of issues.

With the support of their Regional Director, a team of four BAS engineers, who typically cover a much larger portfolio, were assigned to focus specifically on the four buildings for a three-week period. With no outside distractions, they focused on addressing issues with occupant comfort impacts and cost-saving opportunities. Prior to the blitz, the average identified avoidable cost

Faults

Equipment Class Faults for Past 25 Weeks

Legend: Unique Faults, Comfort, Energy, Maintenance
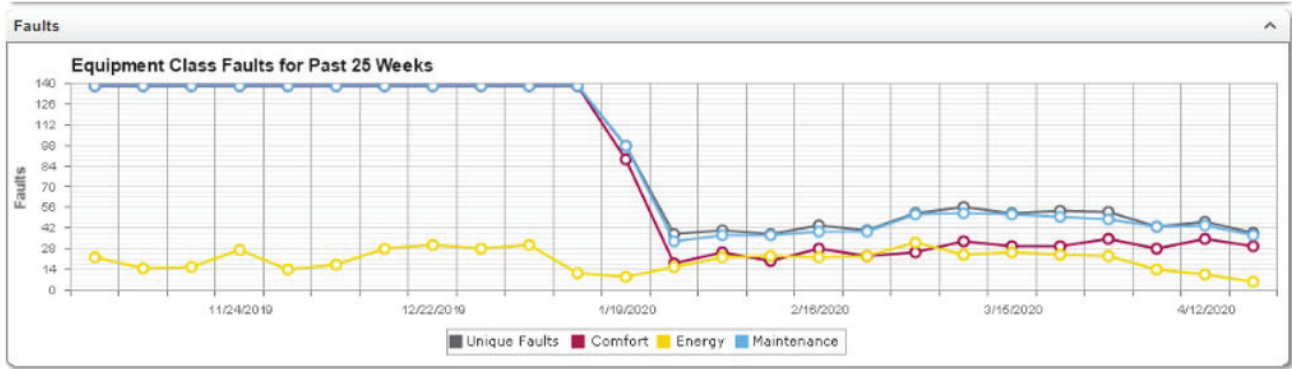
was more than $200 per day across the four administration buildings. After the changes were implemented on site, the daily avoidable cost fell to $30 per day, an 85% reduction.

ORGANIZATIONAL ENGAGEMENT DRIVES SUCCESS

The success of the blitz was attributed to three main factors:

- THE FOCUSED APPROACH ALLOWED ENGINEERING TEAM TO EMBRACE THE CHALLENGE
  - Checking and taking action on identified opportunities became part of daily routine
  - Time-bound effort was supported by leadership
  - FDD opportunities were not deprioritized for other work
  - Benefit of uninterruped focus delivered

- POOLING RESOURCES AND UTILIZING A TEAM APPROACH INSTEAD OF ONE INDIVIDUAL
  - No gaps – every team member was knowledgeable and provided coverage
  - Multiple engineers could tackle challenges as a team and share institutional knowledge

- BLITZ EFFORT MADE OVERWHELMING AMOUNT OF OPPORTUNITIES SEEM MORE MANAGEABLE
  - Focused approach made project seem less daunting
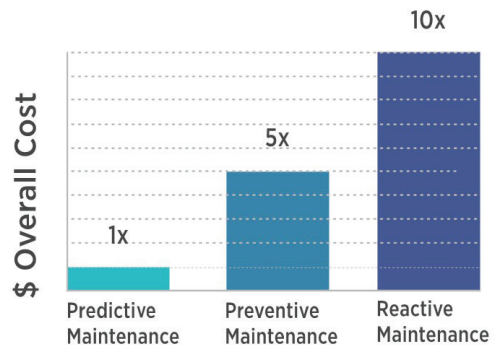
LONG-TERM OPERATIONAL SHIFT

The results of this initial blitz validate the approach and deliver on cost savings, comfort improvements and operational efficiencies. However, beyond the immediate impacts, there is a potentially more impactful, long-term benefit to the way these buildings can be operated in the future.

With the number of daily issues being reduced by more than 70%, staff can shift their focus to more proactive and predictive maintenance practices, rather than being overwhelmed by continuous reactive activities.

REDUCING OVERALL MAINTENANCE COSTS

Studies have shown that overall costs from performing Reactive Maintenance can be 10x the cost of operating facilities with a Predictive Maintenance Model.

With most top issues addressed, the team can take a strategic approach to the review of the daily diagnostics, focusing on the newest and most pressing issues. Having visibility into building performance allows deviations from normal operating parameters to be identified before maintenance requests or comfort complaints are filed. Operating buildings in a proactive manner, rather than reactive, can produce tremendous man-hour savings and drive efficiencies throughout the FM organization.

(Source O&M Best Practice Guide)