

Improved Performance With Proactive Energy Management Manhattan School of Music



Manhattan School of Music is a premier music conservatory for classical music, jazz, and musical theatre dedicated to the personal, artistic, and intellectual development of aspiring musicians, from precollege through postgraduate studies.

Objectives

- Benchmark and analyze energy consumption
- Target inefficiencies to reduce costs
- Develop and implement a strategic energy and water plan

Challenge

After reviewing the results of a New York City mandated energy audit, Manhattan School of Music (MSM) began to recognize the need for developing and deploying a strategic energy and water management plan to fix and proactively resolve energy-related issues. Bright Power's energy audit report confirmed that the conservatory faced aging infrastructure and high cooling and electric costs, which contributed to the ongoing maintenance and budget concerns.

Solution

MSM sought a partner to help them realize their goals: better facilities management, reduction of high operational costs, and streamlined implementation of the right solutions. Using EnergyScoreCards, we identified the efficiency improvements that targetted consumption. Our energy markets experts then created an energy procurement strategy to target supply costs and establish a long-term plan to ensure supply costs don't get out of hand.

Understanding the value of an energy and water management partner, MSM had Bright Power proactively work with site staff and identify areas of improvement to ensure building systems run at peak performance. We became an extension of MSM's site team, helping with capital planning, budgeting, and monitoring real-time building data.

Bright Power's real-time systems-level monitoring targets the right improvements and has led to a more proactive operations and maintenance plan — lending to energy cost reduction, improved comfort for students and faculty, and decreased mechanical issues and failures throughout the school year.

Bright Power continues to measure and verify the success of energy and water improvements in EnergyScoreCards to ensure they are meeting their project energy reduction. Over the course of our five-year engagement, we have helped improve the quality and comfort at MSM while reducing consumption and negative environmental impacts.



Photographed Above: Michael Brusic, Technical Director at Bright Power, testing out the new cooling tower isolation valves.

Improvements

As a part of our ongoing partnership, Bright Power identified and implemented a replacement of isolation valves. In addition, we installed Variable Frequency Drives (VFDs) that allow the motor speed to be reduced, providing only necessary flow to towers. The building staff can now adjust the flow of water to the cooling towers more readily to accommodate for the opening and closing of the valves, leading to maintenance improvements and energy savings. With only a one-year payback, MSM's \$10,000 upfront investment promises a strong ROI. The total list of improvements MSM implemented includes:

- Installed VFDs
- Installed Building Management System
- Replaced chiller
- Operations and maintenance manual
- Upgraded lighting to LEDs

Our Role

- Comprehensive energy auditing
- NYSERDA incentive program procurement services
- EnergyScoreCards benchmarking
- Ongoing energy management consulting through MoBIUS
- Operations and maintenance support and capital planning

"We've worked with Manhattan School of Music for many years now. Through partnership and hard work from their staff, we've been able to move from a culture of reactive and deferred maintenance to one that is proactive and data driven. Our analytics and operational familiarity with the facility now allow us to identify and resolve problems as, or before, they happen."

Michael Brusic
Technical Director
Bright Power

Results Tracked in EnergyScoreCards

35%
WATER USAGE REDUCTION

23%
ENERGY USAGE REDUCTION

20%
CARBON EMISSIONS REDUCTION

\$17,500
INCENTIVES RECEIVED