Aircuity case study

State University of New York at Plattsburgh

Aircuity helps to reduce energy, create a healthier environment and reduce deferred maintenance.

The State University of New York at Plattsburgh is a four-year institution located in northern New York and is a part of the State University of New York (SUNY) system. Currently a big focus of all SUNY locations and SUNY System Administration is to meet Build Smart NY's executive Order 88. The Governor's Order mandates a 20 percent improvement in the energy efficiency performance of State government buildings by April 2020. Lab buildings are typically the most energy intensive spaces on campus and the university needed a way to address the energy use in these spaces, while still maintaining a healthy facility for occupants.

Hudson Hall on the SUNY Plattsburgh campus is one of two main science buildings. Local Aircuity representative, Green Building Partners, identified Hudson Hall as a great application for the solution and it was installed in all lab areas of the building. With Aircuity's implementation, air change rates were reduced from 6 (with a few spaces at 7) to a baseline of 3 and 4 ACH, increasing when additional fresh air is needed.

BENEFITS BEYOND ENERGY SAVINGS

Once installed the university was able to realize additional benefits beyond the significant energy savings. Optimizing ventilation through Aircuity also addressed an issue with moisture in the labs. Originally the chillers in the building were not keeping up with the cooling requirements, which in turn was causing a moisture issue with the microscopes. With the ventilation rates matching the current needs of the space and generally less air to cool, SUNY Plattsburgh's EH&S department confirmed that the problem was eliminated.

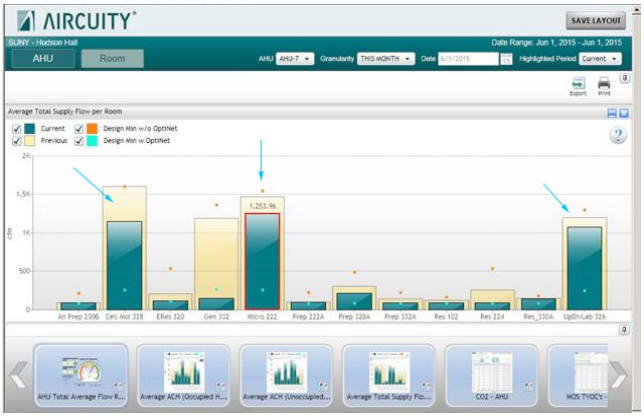
Photo Provided/SUNY Plattsburgh.

Aircuity's solution also helped to reduce the university's deferred maintenance backlog by identifying several faulty controllers in the building. After the installation was complete Aircuity's analytics identified several rooms where CFMs were still not reporting as low as initially targeted.

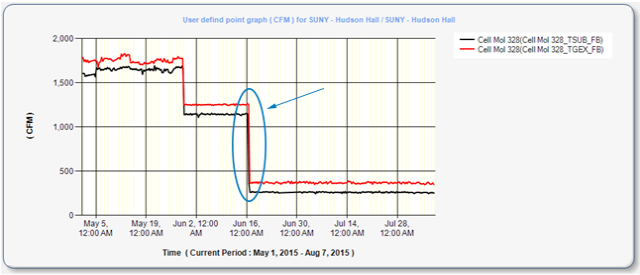
"I met Gordon Sharp (Aircuity's founder) at a local ASHRAE meeting back late 2013 where he presented a talk on *Deep Energy Reductions in Labs*. Seeing that he had been recently published in the ASHRAE Handbook chapter for laboratories, I was excited at the possibility of utilizing this concept to both achieve energy savings and solve a humidity problem in our lab building. We are happy with the results."

Crystal Price, Sustainability Coordinator
SUNY Plattsburgh

AIRCUITY®



By tracking the CFM levels in each of these rooms using Aircuity's analytics, three broken actuators were discovered and then repaired. Now these rooms are hitting their targets.



Two additional rooms are being tracked to further reduce CFM levels by carefully monitoring the fume hood sash positions.

“I met Gordon Sharp (Aircuity’s founder) at a local ASHRAE meeting back late 2013 where he presented a talk on “Deep Energy Reductions in Labs”, said Crystal Price, sustainability coordinator, SUNY Plattsburgh. “Seeing that he had been recently published in the ASHRAE handbook chapter for laboratories, I was excited at the possibility of utilizing this concept to both achieve energy savings and solve a humidity problem in our lab building. We are happy with the results.”

The energy reduction in Hudson Hall grabbed the attention of the New York State Energy Manager (NYEM), who took note of the reduction in the building at the meter level. Currently the building is being considered for an energy efficiency award. The installation of Aircuity in the lab areas is just one example of the significant role an airside solution can play in helping to achieve important energy goals. SUNY Plattsburgh was able to save energy in one of its most energy intensive and critical safety environments on campus, while receiving better indoor environmental quality and reducing deferred maintenance along the way.

ABOUT SUNY AT PLATTSBURGH

SUNY Plattsburgh (www.plattsburgh.edu) was founded in 1889 as a teaching college and in 1948 became an original member of the State University of New York (SUNY). Under President John Ettling, the four-year comprehensive college now serves 5,500 undergraduates and 500 graduate students. It offers more than 60 majors and a wide range of special programs that prepare graduates for professional life and advanced studies through a strong foundation in liberal arts and an experience that celebrates excellence, ethical values, lifelong learning and responsible citizenship in a global community. Situated near Lake Champlain, the Adirondacks, and Canada, the college's unique location provides rich recreational, cultural and educational opportunities. Today, SUNY Plattsburgh is a thriving campus that has experienced significant growth in student applications, has been recognized two years in a row by Kiplinger's Personal Finance magazine as one of the "Top 100 Values in Public Colleges," for its mix of academic quality, financial aid, opportunities and total cost.

ABOUT AIRCUITY

Aircuity is the smart airside efficiency company providing building owners with sustained energy savings through its intelligent measurement solutions. By combining real-time sensing and continuous analysis of indoor environments, the company has helped commercial, institutional and lab building owners lower operating costs, improve safety and become more energy efficient. Founded in 2000 and headquartered in Newton, MA, Aircuity’s solutions have benefitted organizations such as the University of Pennsylvania, Eli Lilly, Masdar City, the Bank of America Tower and the University of California-Irvine. For additional information on the company and its solutions, please visit: http://www.aircuity.com.

AIRCUITY