

Aircuity case study

Allegheny County Sanitary Authority

Aircuity Dramatically Lowers First Cost in ALCOSAN's New Facility

THE ALLEGHENY COUNTY SANITARY AUTHORITY (ALCOSAN) is committed to providing wastewater treatment services 24 hours a day, ensuring clean water for over 83 communities throughout Allegheny County. With a workforce of over 400 employees, ALCOSAN manages the design, construction, and operations of a complex sewer system and treatment plant that has served the area for over 60 years. As part of their commitment to sustainability and efficiency, ALCOSAN incorporated innovative energy solutions in the design of their new building, which includes laboratories and office spaces.

AIR QUALITY ON DISPLAY

In constructing this new facility, ALCOSAN partnered with Aircuity to optimize the building's energy performance, particularly in its labs and office spaces. Two key Aircuity channel partners—Metropolitan Equipment Group and Specified Solutions—played critical roles in the successful execution of this project. Metropolitan Equipment Group provided analysis and proposals, while Specified Solutions was responsible for programming, commissioning, and startup.

INSTALLATION

Aircuity's platform was installed on the first, second, and third floors of the building, where various laboratory spaces required precise IAQ monitoring. In these labs, Aircuity is continuously monitoring a range of parameters including volatile organic compounds (VOCs), particulate matter, and carbon dioxide (CO2) levels, ensuring optimal ventilation at all times.

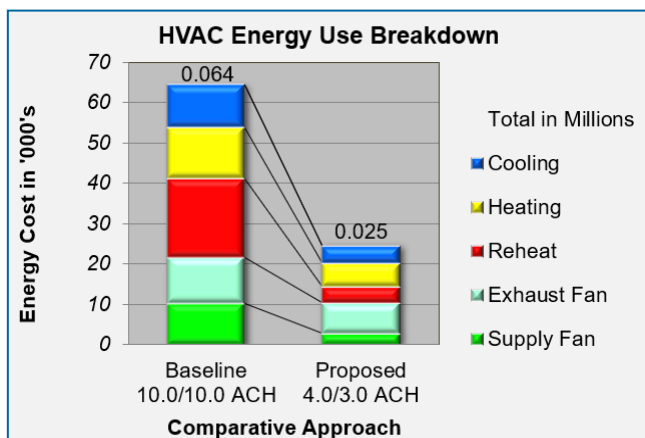


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In addition to the lab areas, Aircuity was installed in the office spaces. There, Aircuity is monitoring and controlling based on CO2 levels, to ensure a healthy indoor environment.

FIRST COST SAVINGS

One of the primary benefits of incorporating Aircuity's system into the ALCOSAN building was the opportunity to downsize the air handlers and chillers initially planned for the building. By including Aircuity in the building, the engineering and consulting firm, AE Works, was able to downsize the air handlers and chillers to be used in the building. In addition, decreasing power consumption made it so that the electrical services did not need to be upgraded. Together with right-sizing the equipment ALCOSAN saved approximately \$3 million in first costs.



ANNUAL ENERGY SAVINGS

Beyond first cost savings, installed Aircuity system has resulted in substantial operational savings for ALCOSAN's laboratories and office spaces:

	Annual Reduction
Energy Cost	\$40,000
kWh	158,547
Therms	20,202
Peak Demand Reduction	48 kW

CONCLUSION

By integrating Aircuity's demand control ventilation system into its new building, ALCOSAN was able to achieve a high level of energy efficiency while ensuring the health and safety of its occupants. The system not only saved the organization millions of dollars in upfront costs but also continues to deliver ongoing operational savings year after year. Including Aircuity demonstrates ALCOSAN's commitment to both fiscal responsibility and environmental sustainability.

"Through our engineering design expertise, AE Works supported ALCOSAN in advancing its \$2 billion Clean Water Plan. We designed a solution that incorporated the Aircuity system, which helped deliver measurable savings in both capital and operating costs, while ensuring laboratory safety standards were fully met."

Tony Cillo, Mechanical Engineer
AE Works

ABOUT ALCOSAN

ALCOSAN is committed to providing wastewater treatment services 24 hours a day, seven days a week. From our Board of Directors to our Executive Director, leadership and staff; we work to enhance the community's quality of life and safety by protecting our rivers and streams. After 60 years of continued design, construction and operations of the sewer system and treatment plant, we now have 400 plus employees serving residential, commercial and industrial customers in 83 communities throughout Allegheny County.

ABOUT AIRCUITY

Aircuity has been the leader in reducing energy and carbon emissions while creating healthier indoor environments for over 25 years. Commercial, institutional and lab building owners can protect occupants, improve employee productivity and wellness, lower operating costs, and verifiably reduce energy use by as much as 60 percent. Headquartered in Norwood, MA, Aircuity's solutions have benefited organizations such as Google, SUNY, Eli Lilly, Takeda, the University of Pennsylvania, and the University of California-Irvine. For additional information on the company and its solutions, please visit: www.aircuity.com.

