

Airflow optimization results in \$350,000 in rebates and \$3M in utility savings



CLIENT	ENVIRONMENT	SCOPE OF WORK
Independent teaching hospital of Harvard Medical School. One of the largest recipients of NIH biomedical R&D funding.	<ul style="list-style-type: none"> • 704,000 sq. ft. research facility • LEED Gold 18-story building 	Various Hard FM services since 2008 • 8 Able Engineers

CLIENT NEEDS / CHALLENGE

The client wanted to reduce their energy costs and earn rebates under the electric utility program. The challenge arose from the conservatively designed floors with high general exhaust and ventilation rates, which resulted in high airflows with substantial chilled water, preheat/reheat loads, and high-fan energy use.

OUR SOLUTION

Able partnered with Aircuity to reduce the level of volumetric air in the lab and vivarium spaces, which in turn decreased electricity and steam consumption and improved operational efficiencies. As a result, tenants purchased fewer air conditioners and customer experienced an increase in utility cost savings. The facility is now equipped with an efficient central plant and extensive sub-metering of chillers, boilers, pumping systems, air-handlers, and exhaust fans.

CLIENT BENEFITS

- HVAC provided by 100% outside air
- Annual reduction of 1.8 million kilowatt hours, 22 million BTUs (chilled water), and 160 dekatherms (natural gas)
- Greater central plant capacity via demand side reduction
- Increase in tenant retention due to lower operating costs per square foot