



utiliVisor installs energy monitoring system at NYU Langone Medical Center

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utiliVisor has installed a system to provide detailed end-to-end energy monitoring services for the chilled water generation systems at NYU Langone Medical Center. The center, comprised of 11 buildings with 2.9 million s/f, is located at 545 First Ave.

The facility includes the NYU School of Medicine, Tisch Hospital, Rusk Institute of Rehabilitative Medicine, and the Hospital for Joint Diseases. The medical center's mission is tri-fold: patient care, biomedical research, and medical education. For over 167 years, NYU physicians and researchers have made contributions to the practice and science of healthcare. Approximately 3,500 people and faculty members occupy the buildings daily.

The energy monitoring is being conducted under a grant given to NYU Langone from a \$7.4 million NYSERDA program to support 30 energy conservation projects in the city.

utiliVisor is providing energy oversight of the chilled water generation systems and assisting NYU's facilities staff in analyzing and improving the energy performance of the operations for three interconnected chiller plants located in the Tisch, Skirball and Smilow buildings, with an overall cooling capacity of 23,200 tons.

The objective is to continuously reduce operating costs by making custom recommendations to increase the energy performance of the system holistically, reducing electric and steam consumption required to generate the chilled water. The service has had an added benefit of making the engineering staff aware of the ongoing performance of varying cooling loads within the facility by utilizing, storing and organizing interval data collected by conventional building automation systems.

To enable continuous performance monitoring, electric meters and steam meters were installed to measure all chilled water, pumping and tower fan energy. These new measurement devices were mapped in the existing automation system, which pushed measured interval data to the web via an FTP site, along with existing BTU measurement points giving the plant operations staff a greatly improved viewpoint on plant efficiency. UtiliVisor's operations center and NYU Langone staff now have a "real-time" online web-based chiller plant analysis tool to evaluate the performance of both electric and steam driven chillers.

UtiliVisor engineers are using the data to analyze the plants' performance from the company's operation center in Manhattan, collecting data that will augment the program already in place at NYU Langone to devise ways to optimize the generation and distribution of chilled water throughout the campus. The project is focused on optimizing the use of chilled water generation and distribution through the system by developing an energy matrix to select the most efficient and most cost

effective method for operations based on the holistic system efficiency. Concurrently utiliVisor is determining the most efficient pumping scheme and optimal flows for each piece of equipment, the break even points on pumping and cooling tower energy versus chiller performance, and flows for the campus as a whole and consistently monitoring the holistic performance of the system during changing seasonal modes of operation. The implementation of the utiliVisor monitoring system is expected to save NYU Langone Medical Center a minimum of 10% in chilled water generation costs.

Founded in 1978, utiliVisor (formerly known as Utility Programs & Metering) offers comprehensive energy monitoring and submetering services, providing accurate, reliable solutions to boost efficiency and lower energy consumption. The utiliVisor system is a web-based, networked solution, built on open standards, that works in real time to collect and format data, monitor operations and equipment errors, and deliver oversight via web-based alerts and alarms. UtiliVisor services more than 450 facilities nationwide and oversees more than 47,000 service data points, more than any other service provider in the United States. It is also the largest submetering company in the tri-state New York metropolitan area and an approved Meter Data Service Provider (MDSP) for the State of New York. (www.utilivisor.com).

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