

# Using Real-Time Energy Data to Cure Hospital Energy Waste

## LOCATION

NYU Langone Orthopedic Hospital,  
Manhattan, NY

## GOAL

Create visibility into energy usage patterns to lower consumption without impacting patient care

## UTILITIES INVOLVED

Electricity, water

## SQUARE FOOTAGE

338,424

## RESULTS

382,455 kWh/\$57,369 annual savings

## Background

One of the largest orthopedic surgery programs in the country, NYU Langone treats all kinds of orthopedic conditions, including surgery, pediatric care, sports medicine, and rehabilitation and recovery from a variety of conditions and injuries.

Located in the most densely populated borough in New York City, NYU Langone Orthopedic Hospital is committed to the pursuit of sustainable operations. To meet its goals of minimizing environmental impact, the hospital invested in building a best-in-class real-time energy management program and brought utiliVisor on board to oversee the chilled water plant and chilled water distribution for the facility. The hospital was particularly interested in utiliVisor for its four decades of experience in HVAC efficiency for hospitals, universities, and commercial real estate. The hospital's immediate goal was to reduce chilled water costs by 12%–20% via operational improvements of existing systems. What the facility lacked was the visibility into its systems to know what changes to make and to evaluate the impact of those changes.



## The utili**V**isor Solution

utili**V**isor's real-time energy monitoring system is a web-based, networked solution of submeters and data collectors built on open standards. The system collects data in five-minute intervals and harmonizes the data from throughout the facility to provide a holistic understanding of operations as well as monitoring of equipment error states and threshold alerts.

For NYU Langone, utili**V**isor developed a secure interface between the CBAS building management system for 473 points. Because of the existing capability in the facility, utili**V**isor was able to set up a data push directly from the current equipment, without bringing in additional hardware. utili**V**isor's Operations Center, staffed by engineering, rate, and meter experts, review the site's data daily and analyze it regularly to provide actionable insights about operational efficiencies.

## Results

In just the first of a five-year service contract, utili**V**isor made nine main recommendations based on the RTEM data, ranging from reducing the chilled water pump minimum speed to 12 hz to resetting air handler schedules to be altered seasonally. After implementing these changes, the facility saved 382,455 kWh, or \$57,369, annually.

According to the hospital, the most significant benefit of utili**V**isor's system was the comprehensive review of equipment performance and system operating costs on a real-time basis. Experienced engineers analyzed the data daily to optimize central energy plant performance consistently, helping to develop new operating strategies. utili**V**isor's Operations Center tracked real-time data, system performance, and system alerts based on set operating thresholds and performance criteria. System savings are documented and reported on a monthly basis and compared to the base year's operating costs (with weather normalization).

“ The process was quite straightforward. There were operational issues identified that we wouldn't have otherwise been aware of. ”

## About utili**V**isor

Founded in 1978, utili**V**isor offers comprehensive energy monitoring and submetering services, not just software. Our Operations Center is staffed with expert engineers, billing analysts, and meter technicians who review your data for accuracy to deliver insights and save you money.