

NEWYORK-PRESBYTERIAN HOSPITAL'S GALLERY WALKS

SOLUTION OVERVIEW

NewYork-Presbyterian Hospital (NYP), based in New York City, is one of the nation's largest and most comprehensive hospitals, with some 2,600 beds. The hospital's 6,000 affiliated physicians and 19,000 staff provide state-of-the-art inpatient, ambulatory and preventive care in all areas of medicine at six major centers. The hospital's six campuses encompass 35 buildings and 10.5 million square feet, making it among the top energy users in the New York metropolitan area.

In the face of national health care reform, hospitals are challenged to provide quality care while reducing costs. To do this NYP believes that hospitals must broaden the traditional definition of caregiver to include all hospital staff: doctors and nurses, but also facilities, support, administrative and executive staff. Instead of staff silos with conflicting goals (e.g., energy reduction vs. patient comfort), this perspective facilitates staff collaboration around the common goal of improving the environment of care. NYP created an overarching program called HERCULES (Hospital Efficiency, Revenue cycle, Clinical Utilization, Length of Stay, and Enhanced Sourcing), an initiative focused on improving efficiency and reducing costs, while maintaining and enhancing patient care. One result of this collaboration is reduced energy use through Gallery Walks, a unique process that leverages the perspectives of caregivers in all parts of the organization.

ORGANIZATION TYPE

Hospital/Healthcare Facility

BARRIER

Improving patient care and managing energy use are not always perceived as being linked. By explaining how energy use impacts Patient Outcomes, Patient Safety and Patient Experience, NYP engages caregivers towards achieving both

SOLUTION

A retro-commissioning program engaging all hospital staff as caregivers -- through 'Gallery Walks' and associated feedback channels

OUTCOME

Energy conservation results when all caregivers focus on improving the environment of care holistically, not just on reducing energy costs

POLICIES

To further achieve its mission, NYP has developed and implemented an energy policy with guidelines that will ensure long-term results throughout the organization. These guidelines address institutional responsibility to: supply energy in a manner that protects the environment and conserves natural resources, hold employees responsible for conserving energy in all aspects of their work, and to improve existing building operations by optimizing energy supply and demand efficiency. The policy also focuses on procurement practices – committing the organization to purchase appliances and equipment that meet the ENERGY STAR® standard.

Furthermore, in 2009 NYP created a Sustainability Council with a focused Energy Efficiency Committee (EEC). The committee is made up of Site Directors, Plant and Electrical Managers and Supervisors from each hospital, a total of 15 representatives. Roles and responsibilities for each member are described below:

- **Vice President of Facilities** – Oversight of the EEC, meets quarterly with committee.
- **Energy Program Manager** – Oversight of EEC structure at each site, monitor financial reporting, development of financial variance reports, liaison between NYP Facilities Operations, Finance, Energy Consultants, Sustainability Council and Senior Leadership. Develop and implement energy reduction goals and engage NYP employees. Set up Brown Bag educational sessions with Green Champions and Plant Management to educate end users. Ongoing participation in DOE BBC, EPA ENERGY STAR, State/Utility incentive programs and energy management organizations.
- **Site Director** – Oversight of energy conservation projects implemented at each site
- **Plant/Electrical Manager** – Oversight of plant production and consumption, responsible for monitoring energy consumption and reporting operational deficiencies.
- **Plant/Electrical Supervisor** – Responsible for energy consumption, preventative maintenance, tracking deficiencies and enforcing corrective action to resolve energy losses identified from the implementation of energy projects.
- **Director of Business Systems** – Oversight of Energy Budget and development of strategic procurement procedures necessary to implement energy conservation projects.

The committee has the following objectives:

- Improve energy efficiency
- Reduce energy consumption, energy costs, and greenhouse gases
- Enhance preventative maintenance programs that incorporate energy efficiency
- Assist in developing infrastructure capital projects that improve energy efficiency
- Improve reliability and air quality
- Cultivate a learning environment for all caregivers

Each hospital has a designated Green Captain, a volunteer staff member – typically a physician, nurse, clinical administrator and a facilities project manager – who serves as primary caregiver point of contact for sustainability initiatives. In addition, volunteer Green Champions are elected annually by each department within a site. Green Champions serve as liaisons between and their

departmental co-workers, Green Captains, and the hospital's senior staff. Green Captains and Champions sit on the Sustainability Council. Council members assist with online surveys, implement programs and encourage staff to participate in ongoing projects. The Sustainability Council meets on a monthly basis to discuss conservation opportunities throughout the organization.

PROCESS

NYP launched the HERCULES initiative in 2011. Under HERCULES, the Energy Efficiency Committee developed a retro-commissioning program to assess current building systems and their effect on the environment of care. The committee established a four-year plan to optimize the operation and energy use of NYP facilities, and a third party engineering firm was selected to partner with the hospital. NYP Facilities Operations commits financial resources to implement energy conservation and facility improvement measures across existing building systems and equipment, and to address operational improvements.

One important differentiating element of the NYP's retro-commissioning effort is its engagement of all caregivers to uncover initiatives that can both reduce energy use and improve the quality of care. A key staff engagement initiative is the Gallery Walk. Gallery Walks are scheduled quarterly by the Sustainability Director at various NYP facilities and are open to all NYP staff. The walks are typically led by the Sustainability Director, Green Captain and the Energy Program Manager. Participants walk portions of the hospital buildings together generating ideas to reduce waste and improve care.

- Installing low-level floor lights in patient rooms and corridors to reduce energy consumption from overhead lighting and provide a more restful night-time environment for patients
- Installing thermostats in each patient room to provide greater patient comfort
- Dimming corridor lights in the evening and at night to provide a more restful atmosphere
- Installing occupancy sensors to reduce energy waste during unoccupied periods
- Understanding caregiver HVAC concerns and rebalancing HVAC systems in administrative areas and nursing stations so that personal space heaters and fans were no longer needed

In the same way, facilities staff -- also engaged as caregivers -- are encouraged to consider the impact of their work on patients. For example, if it costs one hour and \$42 to change a light bulb, how might installing longer life bulbs (requiring fewer changes) increase staff time to focus on proactive maintenance in patient areas? Replacing a fluorescent lamp for an LED decreases patient care disruptions and allows Facilities staff to focus on large-scale operational strategies. Facilities staff who noticed waste heat from pipes running through their offices also suggested insulating high-pressure steam pipes to eliminate energy waste and improve working conditions.

NYP has taken advantage of local incentive programs which encourage energy efficiency. Many of the recent upgrades were partially funded through grants from the New York State Energy Research and Development Authority (NYSERDA) and rebates or incentives from the local utility ConEdison.

OUTREACH

Green Champions

Communication through Green Champion peers at individual hospitals has proven to be the most effective form of outreach to NYP caregivers on energy efficiency issues. The Green Captains communicate all sustainability and energy initiatives to their site's departmental Green Champions. Champions then relay information to other staff members that roll out the initiatives in their respective units. For Gallery Walks, email invitations are sent to Green Champions at the host location. Green Champions distribute the invitation to staff at the location.

Green Champions have time reserved to provide program updates to staff in person every Friday at departmental Patient Safety Friday meetings held weekly throughout the hospital system.

Online Resources

Staff are encouraged to send additional ideas for resource use reduction to an NYPGreen[®] email account monitored by the sustainability and energy management team. A monthly NYPGreen electronic newsletter and Intranet site are also available to staff.

TOOLS AND RESOURCES

- [Gallery Walk Checklist](#) – resource savings ideas offered by staff during Gallery Walks can be noted for follow-up
- [Sample Green Tips Presentation](#) – sent to all Green Champions and shared with staff during Patient Safety Friday meetings

OUTCOMES

The lighting retrofit suggested by nursing staff involved the removal of 1500 T12 lamps from patient corridors at NYP/The Allen Hospital. These lamps were replaced with 750 T5 lamps. The project resulted in savings of 181,923 kWh and \$33,000 annually.

The steam pipe insulation project inspired by facilities staff at NYP/The Allen Hospital has resulted in total savings of 585,000 kBtu and \$8,000 annually.

Expected savings for motion sensor installation projects at NYP/Westchester and NYP/The Allen Hospital are 226,026 kWh and approximately \$40,000 annually.

