

New York-Presbyterian Hospital Goes to Washington

What it Takes to Win

Energy management could very well be your strongest PR opportunity as a healthcare engineer. Just ask the energy management team at New York-Presbyterian Hospital who joined their CEO and other senior executives in Washington, D.C. to receive the prestigious ENERGY STAR® Award from the U.S. Environmental Protection Agency.

Every year, the EPA recognizes top partners in its voluntary ENERGY STAR program that have made outstanding contributions to energy efficiency and environmental protection. Last year, EPA selected Seattle-based Providence Health System. In 2003, ASHE earned the award for effectively communicating the benefits of energy savings to its members. In 2005, New York-Presbyterian Hospital (NYPH) was selected from over 7,000 ENERGY STAR partners for profitably reducing greenhouse gas emissions through energy efficiency.

New York-Presbyterian Hospital, consisting of the university hospitals of Columbia and Cornell, delivers comprehensive medical services to residents of New York City and its surrounding Burroughs. Each year, the hospital handles some 100,000 discharges, schedules over 854,000 outpatient visits, delivers 11,500 babies and accommodates 178,000 emergency visits. Why did EPA choose New York-Presbyterian for its 2005 ENERGY STAR Award for Leadership in Energy Management? Knowing what it takes to win can help you plan a successful strategy for your hospital, your patients, and the environment. And it can improve your profitability and competitiveness, too.

Organizational Commitment

No matter the size or type of organization, the common element of successful energy management is commitment. Organizations institute an energy policy and make a commitment to allocate staff and funding to achieve continuous improvement.

At New York-Presbyterian, energy management is embodied in the vision of the organization to practice fiscal discipline and efficient management of their core services.



"Every dollar saved on energy costs is a dollar that is devoted to improving medical care for our patients," says Dr. Herbert Pardes, president and CEO of New York-Presbyterian.

To establish an energy program, leading organizations form a dedicated energy team to drive energy management activities

across different parts of the organization and ensure integration of best practices. At New York-Presbyterian, senior management formally institutionalized their commitment in 2003 when they established a full-time Energy Programs Manager position, dedicated to maximizing energy savings. Responsibilities under this new position are broad. Energy Programs Manager Jennifer Kearney works not only with the Engineering and Facilities Operations departments on energy initiatives, she coordinates with such diverse departments as Real Estate, IT, Facilities Development, Strategic Sourcing, and Human Resources as well. Energy teams at NYPH are commonly formed to implement specific goals. In 2004, these goals included:

- To implement energy saving improvements identified in energy studies and begin additional studies to identify the next tier of opportunity
- To specify and purchase equipment whose energy efficiency exceeds base building codes – including, wherever possible, ENERGY STAR-qualified products
- To update an outdated lighting specification guideline that did not reflect the latest technological innovations in energy efficient lamps, ballasts and fixtures
- To complete a feasibility study of a combined heat and power plant for one of their facilities

New York-Presbyterian's organizational commitment to energy efficiency extends to outside consultants and vendors as well. Organizations such as ConEdison Solutions, GE Healthcare, Dylan Associates, and the New York State Energy Research & Development Authority have helped the hospital achieve its energy efficiency goals.



New York-Presbyterian Hospital receives the ENERGY STAR Partner of the Year award from EPA and DOE officials in Washington, D.C.

Energy Tracking and Benchmarking

Understanding current and past energy use is how many organizations identify opportunities to improve energy performance and gain financial benefits. Assessing performance is the periodic process of evaluating energy use for all major facilities and functions in the organization and establishing a baseline for measuring future results of efficiency efforts.

NYPH tracks energy consumption monthly using the EPA's national energy performance rating system (www.energystar.gov/benchmark) to compare the energy performance of their acute care hospitals to each other, to peers, and over time to identify top performers and prioritize investments in less efficient facilities. The information used in monthly reports to the Facilities Operations Vice President assists in identifying trends, efficiency opportunities, and tracking progress. Four facilities were identified by NYPH as being eligible for the ENERGY STAR label and are currently undergoing validation measures.

In addition to monthly benchmarking, information in the Central Plant control system is gathered and recorded in real time by the plant operating personnel. Plant supervisors have highlighted several key parameters for the operators to watch and actively manage, including chilled water temperature difference and total plant electric demand. Operators compare values to historical as well as theoretical values for active, real-time plant management.

Energy Achievements

NYPH uses over 200 million-kilowatt hours of electricity, over 2.5 million BTUs of fuel, and an electric peak demand exceeding 42 megawatts, making it one of the largest single energy consumers in New York City. Due to aggressive expansion efforts, NPYH's energy requirements are continuing to grow. To curtail rising energy costs, management wanted to adopt the most rigorous savings targets achievable in the industry, and became the first hospital to meet the ENERGY STAR Challenge (www.energystar.gov/challenge) by establishing and attaining an efficiency improvement goal of 10% or greater for their entire NYPH portfolio of buildings.

Upgrade projects included a comprehensive HVAC retrofit (premium efficiency motors, adding DDC controls with connection to a central building management system, and programming each unit for shut downs and set backs), a lighting upgrade for 5,000 fixtures, the addition of variable frequency drives to large equipment in their central plants, and a modification to the delta-T on their chilled water system, which will decrease pumping requirements.

In 2004, energy savings at New York-Presbyterian Hospital contributed over \$900,000 to their bottom line, equivalent to generating over \$18 million in new business during the first year. From an environmental perspective, these energy savings prevented 8.2 million pounds of carbon dioxide emissions, equivalent to the emissions from over 700 cars.

But NYPH will not stop there. Kearney has set her sights on improving the hospital's efficiency by another 10 points in the near future, to reap even more savings.

Communications

EPA encourages ENERGY STAR partners to inform their staff and stakeholders about the value of energy-efficiency efforts. Doing so validates the importance of the energy management program and helps to sustain support and momentum.

NYPH uses a variety of media to promote its energy management program internally. Monthly energy conservation achievements are publicized with a series of posters (www.energystar.gov/energymonth) produced by the energy team. Each poster has an energy conservation hotline number for employees to call in suggestions. The in-house television channel named the "Get Well" network, plays ENERGY STAR public service announcements on a four-hour rotation. This message is seen by approximately 2400 patients on a daily basis. Energy Awareness Month in October is observed with an energy booth to raise awareness among staff and patients.

To incentivize behavioral and cultural changes, NYPH rewards employees who demonstrate a commitment to implement internal energy performance goals. A "Service Star" is routinely awarded to employees who identify energy waste and offer potential solutions.

Good work deserves to be acknowledged. Recognition from a third party can provide validation for an organization's energy management program. Not only does it provide satisfaction to those involved in earning the recognition, but it can also enhance an organization's public image. A solid reputation contributes to your competitive advantage by making your organization more attractive to patients, doctors, current and potential employees, lenders, business partners and other stakeholders.

The good work of New York-Presbyterian Hospital is acknowledged by multiple organizations. The Greater New York Hospital Association (GNYHA) is one of them. Comprised of more than 200 not-for-profit hospitals and continuing care facilities in the New York metropolitan area, the GNYHA often invites NYPH representatives to speak at local conferences about their success.

The U.S. Environmental Protection Agency congratulates the healthcare engineers of New York-Presbyterian Hospital, for their dedication to energy management and environmental stewardship, and recognizes their leadership by proclaiming New York-Presbyterian Hospital as a 2005 ENERGY STAR award winner.

Clark Reed is the National Healthcare Manager for ENERGY STAR at the U.S. EPA. Last year, ENERGY STAR helped Americans save enough energy to power 24 million homes, reducing greenhouse gas emissions equivalent to that of 20 million cars — all while saving consumers \$10 billion. To join, visit ENERGY STAR's website or contact the author at the U.S. Environmental Protection Agency - MC 6202J, 1200 Pennsylvania Ave NW, Washington, D.C. 20460. Email: reed.clark@epa.gov Phone: 202-343-9146.