



## **NewYork-Presbyterian Hospital's energy efforts net national acclaim, bottom-line savings**

NewYork-Presbyterian Hospital is the nation's largest not-for-profit, non-sectarian hospital, with 2,353 beds, and nearly 2 million inpatient and outpatient visits in a year. Its five major campuses encompass 33 buildings and 8.6 million square feet, making it among the top 2 percent of energy users in the New York City metropolitan area, consuming over 200 million-kilowatt hours (KWH) of electricity, over 2.5 million BTUs of fuel, and an Electric Peak demand exceeding 42 megawatts.



So it's no coincidence that NewYork-Presbyterian is also one of the most lauded and successful hospitals in the country for energy conservation and sustainability.

In fact, no other hospital in the country has been honored more by the Energy Star program, administered by the Environmental Protection Agency (EPA) and Department of Energy. In March 2010, the hospital was honored by the EPA for the *fifth time* with the agency's highest honor – the Energy Star Partner of the Year Award for Sustained Excellence in Energy Management. The award was given to the hospital for its leadership in efforts to reduce greenhouse gas emissions through energy efficiency and ongoing exceptional leadership year after year in the Energy Star program.

Out of 110 Award winners chosen from 17,000 partners in the Energy Star program, Energy Star awarded 50 Sustained Excellence winners that continued to exhibit exceptional leadership year after year in the Energy Star program while remaining dedicated to environmental protection through superior energy efficiency. NewYork-Presbyterian was the only hospital to be recognized with an award.

NewYork-Presbyterian was named an Energy Star Leader in 2003 and 2004 and named as EPA ENERGY STAR Partner of the Year for exhibiting leadership in Energy Management in 2005 and 2006. The hospital then achieved the honor of Sustained Excellence in 2007 and 2008.

In its congratulatory letter to the hospital, the EPA's Jean Lupinacci wrote, "NewYork-Presbyterian Hospital's outstanding accomplishments demonstrate that improved energy performance can benefit the bottom line and protect the environment at the same time. Your commitment to smart energy management, your ability to measure and track progress, and your effort to communicate the importance of energy efficiency to a wide audience distinguishes NewYork-Presbyterian as an industry leader."

"Through our work with Energy Star, our hospital is able to bring innovative approaches and solutions to make our hospital more energy efficient and environmental sustainable," said Graeme Mitchell, Vice President of Corporate Engineering, NewYork-Presbyterian. Mitchell said the hospital is particularly proud of the fact that it is the only hospital to launch the "Change the World, Start with Energy Star" campaign, pledging to reduce more than 3.5 million pounds of greenhouse gas emissions for 2009. In fact, the hospital exceeded this goal by 185 percent — one of the four highest amounts for any U.S. non-profit organization, according to the EPA.

### **It began with a vision in 2003**

NewYork-Presbyterian has bucked prevailing opinions among top leadership in U.S. hospitals that energy conservation programs are too expensive and have unacceptable payback periods. Its journey in energy conservation and sustainability began in 2003, when the hospital created an Energy Manager position in the organization responsible for coordinating energy purchasing and projects and related efforts with various departments, including corporate engineering and facilities operations, information technology, procurement, human resources and real estate.

According to Mitchell, the hospital modeled its highly successful program after the EPA's *Energy Star Guidelines for Energy Management*. "This has been an indispensable tool for the establishment of best practices that have been implemented by hospital leadership," he said, "and have now proven to stand the test of time. Our collaboration with Energy Star has been an exceptional success." The hospital also uses the agency's national energy performance rating system to track energy performance, benchmarking the data among its five facilities and engaging plant managers to regularly track energy demand statistics.

### **Broadening the vision in 2008**

In 2008, the NewYork-Presbyterian increased its environmental commitment by developing a broader sustainability strategy to encompass waste management, procurement, transportation, wellness, and food and nutrition. The result was NewYork-Presbyterian's NYPgreen, a unified sustainability program with one clear mission: to create the safest and healthiest environment for patients, staff and community.

Sustainability information and initiatives are managed and communicated throughout the organization by the Sustainability Council, the primary forum where representatives from key departments meet monthly to discuss new programs and activities for the hospital's multiple campuses. Through the member Task Forces, the Council has launched diverse programs including recycling, composting, green cleaning, a farmer's market, hybrid vehicle purchase, a ride-share program, and bike rack installations.

Recognizing that grassroots engagement is key to ongoing awareness and success, the Sustainability Office launched a "Green Champions" program to ignite activity at the staff level. NewYork-Presbyterian recruited more than 250 Green Champions as key communicators and catalysts for behavioral change in their work areas. Assembled into "Green Teams" and led by "Green Captains," they educate colleagues about the importance of the hospitals' sustainability programs. To reinforce these practices, Green Champions share "Weekly Green Tip" emails with coworkers and staff teams.

The hospital also runs regular promotional spots on its in-house television network; distributes energy conservation pamphlets and posters to staff, members, patients, visitors, and guests; and provides a hotline number for calling in tips and ideas. Staff who demonstrate a commitment to energy conservation efforts and identify energy waste also are recognized. And every October, the hospital also hosts "Energy Awareness Month" to boost awareness with the public and staff.

Another awareness project called "Un-power Hour" was developed to promote energy conservation and was inspired by Earth Hour, a one-hour voluntary "black-out" first developed several years ago in Sydney, Australia. "Un-power Hour aims to create awareness around energy reduction and give everyone in the hospital the opportunity to make a contribution," Mitchell said. The first Un-power Hour

happened on April 2, 2009, when lights were turned off in non-clinical and non-critical areas and the power was shut down on one of the escalators. The estimated savings during the period was 192 KWH – equivalent to lighting 192 homes for one hour.

The team also works with purchasing/procurement staff to develop policies for identifying and exploring cost-effective purchasing solutions with the hospital's vendors, many of whom actively participate in helping the hospital achieve its energy conservation goals.

### **CEO support essential**

NewYork-Presbyterian's energy management and sustainability programs have already achieved high levels of success. The hospital has been recognized by PracticeGreenhealth with several Environmental Excellence Awards for the multiple campuses. As a repeat Energy Star Partner of the Year, in 2007, the EPA noted, "NewYork-Presbyterian Hospital's commitment to energy management comes from the top, with a CEO who recognizes that every dollar saved in energy is a dollar that can go to improving health care for patients." Dr. Herbert Pardes, president and CEO, noted that the Hospital "knows that supporting a healthy environment is an important part of supporting the health of individuals and the communities they live in."

NewYork Presbyterian also has been recognized for efforts leading to significant reductions in energy consumption through the "E2C" initiative of the American Society for Healthcare Engineers, in which the hospital is a member. In 2009, three of its buildings received the ASHE E2C certificate for reaching a more than 10 percent energy reduction by employing demand-side efficiency measures.

### **Major energy and sustainability initiatives**

Examples of the NewYork-Presbyterian's recent energy and environmental initiatives include:

- **LEED certification** Pursuit of Leadership in Energy and Environmental Design (LEED) certification for several buildings. The hospital's new Vivian and Seymour Milstein Family Heart Center is the first hospital building in the Mid-Atlantic region to be designated LEED Gold. The building was constructed using recycled materials and is estimated to be 30 percent more energy efficient than a standard structure. Another building — the hospital's new Coleman Tower has LEED Silver status. The Tower, a residential high rise, is outfitted with Energy Star qualified appliances, has tenant guidelines for energy and water conservation and has recently purchased "Green-E" renewable energy.
- **Co-generation plant** Installation of a 7.5-megawatt cogeneration plant in 2009 will reduce carbon dioxide emissions by more than 27,000 tons each year — equivalent to taking 4,600 cars off the road, while adding millions of dollars in annual cost savings. It is the first gas combustion turbine in a hospital-based plant in Manhattan.
- **HVAC improvements** Comprehensive retrofits to its HVAC system, lighting, building control system, and central plant, including higher efficiency motors, direct digital controls and programmed shut downs and power downs. Installation of variable frequency drives (VFD's) for major equipment and elevators.
- **Chiller upgrades** A \$3 million chiller improvement project, which is estimated to save more than \$400,000 a year.
- **Greenhouse gas emissions reduction** Participation in New York City Mayor Michael Bloomberg's PlaNYC Challenge, pledging to decrease carbon dioxide emissions 30 percent by

2018 and share best practices with other local organizations. A new fleet of 10+ hybrid vehicles, a staff rideshare program, and bike rack installations all lead to greenhouse gas reduction.

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