Benefits

- 20%+ reduction in energy
- $150,000 in Energy Rebates
- $850,000 in cost-savings (equivalent to nearly $16 million in new revenue based on Energy Star calculations)
- Energy Star Hospital Designation
- E2C Designation
- Employee and Key Leadership Engagement

The Problem

Healthcare organizations spend between $6-$8 billion a year on energy. Our challenge was to create and implement a strategy achieving sustainable and quantifiable positive results in decreasing our local carbon footprint through low-cost energy-efficiency measures.

The Strategy Selected

Bon Secours Health System developed an Ecological Stewardship Plan to reduce the system’s carbon footprint through recycling, waste stream management, reduction of energy usage, and movement toward the use of sustainable products and resources. Through incentives and staff engagement, the system seeks to transform how local systems such as Bon Secours St. Francis in Greenville, SC function around environmental conservation.

As part of the strategy, St. Francis developed key internal and external collaborators. Internally, it was important to not only communicate the plan and engage with the employees at all levels but also to develop a formal policy to achieve energy efficiency. Externally, it was important to partner with the right vendors and suppliers such as Duke Energy, Energy Star, and KLG Jones to advance conservation activities. Through these internal and external relationships, St. Francis has been able to successfully operationalize low-cost energy conservation measures and become the first hospital in South Carolina to be designated as an Energy Star Hospital.

Implementation Process

One of the first steps in the implementation process was to develop an energy task force. The Hospital made a concerted effort to identify potential capital improvements as well to make sure all equipment had an Energy Star rating. A series of low-cost to no-cost measures were also implemented to reduce energy requirements:

Chiller Optimization

- **Eastside campus:** due to weather patterns, the hospital is able to operate without a chiller for over two months out of the year.
- **Downtown campus:** balancing water and adjusting temperature set-points have allowed the Downtown campus to decrease chiller utilization from two units to only one for over five months.

Energy-Efficient Lighting - A plan is in place to replace the outdated incandescent and fluorescent bulbs with energy-efficient compact fluorescent and T8 bulbs.

Steam Trap Maintenance – Checking steam traps on a regular interval to ensure proper functioning and replacing old traps with more energy-efficient versions.

Temperature Monitoring – Engineering team completes daily monitors of the temperature to ensure that heating and cooling points are set to ensure that heating and cooling are not taking place at the same time. Thermostat guards have been installed in many areas to help this process.

The Team:

- Vice President, Facilities/Support Services
- Director, Facilities
- Sustainability Specialist/Educator
- Engaged Engineering Team
- Engaged Employees
Energy Reduction: A commitment to transformation at Bon Secours St. Francis Health System

Efficient Generator Testing – In the place of routine testing of the system’s back-up generators, the engineering staff switches all system power at once to back-up units and leaves the main power off, saving electricity and testing the backup simultaneously.

Continuous monitoring and analysis takes place as well as energy audits. Energy utilization is reviewed at monthly Green Team Meetings.

Challenges and Lessons Learned

The biggest challenge that we face is an aging infrastructure at both of the hospitals. The Downtown campus main building is 40+ years old with some of the original HVAC units still in-use. The Eastside campus is 20+ years old. Some upgrades have been made to the central energy plant at both facilities. The message here is that, despite this challenge, a difference can still be made in the area of energy utilization.

It is all about the E’s:

- Envision – link the energy strategy with the mission and values of your organization
- Engage – educate the employees on how energy initiatives impact their operations, and the need for their involvement to make a difference.
- Enhance – choose partners to help on the energy reduction journey
- Embed – have measurement metrics that are shared with all
- Energize/Excite – make it fun; create an energy campaign that keeps staff interested.

Demographic Information

St. Francis Eastside is a 93-bed facility located on Greenville’s eastside. This facility provides comprehensive community health care, including obstetrics / gynecology, orthopedics, imaging / radiology services, and general medical, surgical and critical care. This facility also features a Neonatal Care Unit, which offers 24/7 coverage by a board-certified neonatologist. Access to 24-hour emergency room and fast-track emergency services is also available.

St. Francis Downtown is a 245-bed, all-private-room facility located near downtown Greenville, South Carolina. This facility offers patients a complete range of comprehensive surgical and diagnostic services, including open-heart surgeries, neurosurgery, bone marrow transplantation, orthopedics, rehabilitation and a 24-hour Emergency department.