

St. Peter's Hospital

Albany, NY

Background

In early 2011, St. Peter's Hospital completed construction of a six-story, 150,000-square-foot hospital tower on the corner of New Scotland Avenue and South Manning Boulevard in Albany. This project was part of the second phase of a six-year, \$287 million campus modernization project to bring the hospital into compliance with national standards and offer state-of-the-art patient care services. The project, which is seeking LEED silver-level certification, includes new cardiac and vascular surgery facilities and patient recovery rooms, new maternity care and cancer care centers, and a two-story atrium with easy access to patient services. The total number of beds remains the same, 442, but now 60% are private rooms, compared to 10% previously.

SAIC was retained by NYSERDA to evaluate electric energy-efficiency opportunities for the new building under the New York Energy Smart New Construction Program. BBL Construction services built the new tower, under the overall project management of Central Consulting, Inc.



Recommendations

SAIC conducted a peer review of an energy model developed by Genesys Engineering, and helped to identify cost-effective improvements to the building and its systems that will reduce its energy consumption and environmental footprint while increasing occupant comfort.

Among the energy efficiency measures implemented at St. Peter's were:

- Improved roof insulation and exterior wall insulation
- High-performance glazing
- Fan wall technology AHU
- Hybrid chiller plant
- Cooling tower optimization
- VFDs for system pumps
- Premium-efficiency motors
- Optimized lighting power density

Results

NYSERDA's incentive of \$502,500 helped St. Peter's defray a portion of the implementation costs to install the efficiency improvements and achieve LEED certification. In total, the project is expected to result in:

- Annual energy savings of 4,665,782 kWh
- Peak demand savings of 1,172 kW in the summer and 667 kW in the winter
- Annual energy cost savings of \$452,677

The St. Peter's Tower building is 19% above the ASHRAE Standard 90.1-2004 code.

