

Cat® Electric Power

CHP Case Study

St. Peter's University Hospital

“Hospital Doubles Down
on Commitment to Energy
Efficiency & Resiliency”



BUILT FOR IT.™



Case Study

Saint Peter's University Hospital

- Nonprofit hospital in New Brunswick, N.J.
- Offers full range of specialized pediatric healthcare services for newborns and children.
- Largest maternity services in the country with over 5,000 deliveries per year.
- Neonatal intensive care unit is nationally recognized as one of the top 50 in the United States.



Case Study

Saint Peter's University Hospital

- In 2011, Saint Peter's embarked on an ambitious energy-savings initiative
- The hospital installed LED lighting throughout the hospital campus.
- Solar panels were installed that provide about 20 percent (2.1 MW) of the campus' energy demand.



Superstorm Sandy: 22-OCT-2012 to 02-NOV-2012

- Largest & most destructive hurricane in the United States in 2012.
- The storm caused ~ \$70 billion in damage in the USA and killed 233 people
- Traveled from the Caribbean to Canada
- Storm lasted 12 days and many people and businesses were without power for 8-10 days.



8 to 10 Days WITHOUT ELECTRICITY

Case Study

Saint Peter's University Hospital

- During Superstorm Sandy, Saint Peter's Hospital only had diesel backup generators.
- Diesel generators only provide backup power for critical loads in the hospital.
- THEN...diesel fuel was difficult to obtain because many roads were flooded or blocked by fallen trees.



St. Peter's survived the hurricane but was determined to be ready for the next storm.

Case Study

Saint Peter's University Hospital

- 2 MW CHP Plant
- Foley Power Systems
- The \$9.2 million CHP project was made possible by a \$6.5 million grant from the U.S. Department of Housing and Urban Development for climate mitigation and disaster resilience, as well as a 10-year \$1 million interest-free loan from PSE&G
- Saint Peter's avoids the peak utility demand charge, saving \$200,000 to \$300,000 per year in energy costs.



Case Study

Saint Peter's University Hospital

- Eleven (11) more CHP projects funded for Resiliency because of Super Storm Sandy
 - ▶ Nine (9) Natural Gas Reciprocating Engines
 - ▶ Two (2) Natural Gas Turbines



CHP is an enabler to provide Resiliency to the grid.

Thank you!

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