

Case study

Saint Clare's Health System

Denville, New Jersey



Strategic facilities partnership improves operations and environment of care

Saint Clare's Health System's vision is to be the healthcare organization of choice in the communities it serves by providing the best care and environment for its patients, residents, physicians and employees. Focused on this vision, the system partnered with Johnson Controls to improve the environment of care in its hospitals and to implement operational best practices.

Through a 15-year performance contract, operations and maintenance agreement, and a service agreement with Johnson Controls, Saint Clare's anticipates energy and operational savings of more than \$17 million, improving its operations and better managing its energy costs.

With hospitals in Boonton Township, Denville, Dover and Sussex, Saint Clare's, a Catholic Health Initiatives Ministry and HeathTrust Purchasing Group member through Consorta, is northwestern New Jersey's premier community health care system. This premier status did not happen without overcoming some significant challenges, however, such as improving its facilities and operations. "We realized that we had some of the oldest facilities in the state, which were in dire need of improvements and that critical upgrades needed to be made to antiquated operating systems and equipment," says David Lundquist, COO for Saint Clare's. This is where the relationship with Johnson Controls began.





Saint Clare's Hospital - Boonton Township.

"Our partnership with Johnson Controls is really an involvement of the heart and soul because it impacts the infrastructure of all of our facilities, affecting the way we think and operate."

DAVID LUNDQUIST
CHIEF OPERATING OFFICER
SAINT CLARE'S HEALTH SYSTEM



Saint Clare's Hospital - Dover General.

Making the necessary improvements in a timely manner and with minimal expense was critical to the financial growth of Saint Clare's, and to its image within the community. Without the internal resources to accomplish this and in an effort to remain focused on its core business, Saint Clare's sought external resources. "Our goal was to align ourselves with a strategic partner that would provide us with the technology and expertise we needed," states Lundquist.

Total solution improves infrastructure, delivers savings

Saint Clare's is not a stranger to strategic partnerships. The system has aligned itself with other suppliers with national and international substance, to achieve benefits beyond that of a standard vendor/client relationship. "Johnson Controls demonstrated that they were willing to enter a similar partnership, one with shared risk but designed to be a win for both parties. They presented a total solution that addressed not only our facilities and equipment needs, but also improved our operational strategies," says Lundquist.

The solution included a performance contract coupled with an operations and maintenance agreement, that together, are designed to provide energy and operational savings of more than \$17 million over 15 years. Saint Clare's is able to use the savings to offset the cost of the improvements.

Facility and equipment improvements performed under the contract include upgrades to central heating and cooling plants, air handling systems, variable frequency drives, steam traps, lighting retrofits, vending machine energy misers, water conservation measures and installation of the Johnson Controls Metasys® building management system at all four of Saint Clare's hospitals. In addition, new equipment for the environmental services department, intended to drive operational efficiencies, was funded through the performance contract.

"Through the contract with Johnson Controls, we upgraded our facilities to where we could claim we were in the 21st century, within the shortest amount of time possible," states Lundquist. "Along with improved facilities and guaranteed savings, we gained key performance indicators and facility improvement measures as built-in benefits that we would not have had otherwise."

In the first two years of the contract, Johnson Controls outperformed the annual guaranteed energy savings by more than \$1 million. In the same period, energy consumption was reduced by 36,151 MMBtu, which equates to 1,403 tons of avoided CO₂ emissions.

Implementing operational best practices

Improving the performance and outcomes of Saint Clare's plant operations, maintenance and

environmental services departments is the focus of the facility services agreement. An on-site management team of six Johnson Controls professionals has full budget responsibility for maintaining the four hospitals. The team also leads the president and CEO's charge to operate each facility like a five-star hotel. In fact, customer satisfaction surveys are conducted on a daily basis to monitor the impact of the Saint Clare's efforts at the patient level.

Using improved management strategies, training, new technology and tools, the team works to enhance the skill level of operations and maintenance employees, smooth out workflow processes and ultimately reduce costs. "This process makes it clear that the Johnson Controls management team is committed to this relationship," states Lundquist. "They work closely with us to address staff concerns, transition employees and affect a necessary cultural change, yet maintain the identity of Saint Clare's."

New controls technology and energy-efficient equipment allow Saint Clare's to take advantage of Johnson Controls demand response program by cutting back on energy use at specific times of the day. Through benchmarking, real time monitoring and reporting, Johnson Controls is able to document actual energy use versus expected energy use at specific times of the day, and Saint Clare's receives payment from the grid operator for curtailing demand.

Key performance indicators have also been put in place to ensure quality of services and readiness for evaluations by The Joint Commission. In fact, the system achieved full accreditation after

The Joint Commission's most recent survey. Johnson Controls also operates a centralized call center, from which service requests throughout the system are tracked and responded to. Data collected by the call center is used to track service response time along with equipment performance and trends. "As a result, we are able to identify potential problems before they happen, and we are no longer reacting to the requirements of The Joint Commission," says Lundquist.

Managing costs for financial predictability

For CFO, Dennis Pignato, the importance of financial predictability goes hand-in-hand with reducing operational costs when it comes to managing Saint Clare's budgets, especially in a tough fiscal environment. Another goal of Johnson Controls on-site team is to help Pignato establish fixed annual energy usage and operational budgets.

When Johnson Controls suggested a reverse energy auction as a means of making electricity and natural gas supply costs more predictable and potentially reduce them, Pignato leveraged the opportunity. "The process, as outlined by Johnson Controls, was well defined and relatively quick. We were able to watch the bidding from a diverse group of suppliers that I could not have otherwise brought to the table, and make a controlled decision of whom to go with," says Pignato.

Since New Jersey is a deregulated market, a reverse energy auction can be used to invite registered energy suppliers to bid, online, for supplying



Environmental Services is one focus of the Facility Services Agreement with Johnson Controls.

"As a result of the reverse energy auction, we know exactly what to expect during the contract term. By leveraging Johnson Controls expertise in this arena and in the general operations of our facilities, we can focus on our expertise, which is delivering acute care."

DENNIS PIGNATO
CHIEF FINANCIAL OFFICER
SAINT CLARE'S HEALTH SYSTEM



David Lundquist, chief operating officer, visits the centralized call center, operated by Johnson Controls.



Johnson Controls facilities director, Oliver Robling, assists David Lundquist, chief operating officer and his staff in establishing fixed annual energy usage and operational budgets.

"The Johnson Controls culture and business philosophy coincides with ours, that being state-of-the-art customer service and a willingness to work together."

DAVID LUNDQUIST
CHIEF OPERATING OFFICER
SAINT CLARE'S HEALTH SYSTEM



Saint Clare's Hospital - Sussex.



a customer's electric and natural gas needs. Load profiles are established along with terms and conditions such as length and type of contract and delivery points, with which all competing suppliers must comply. Auctions are typically 15 minutes in length. At the end of the auction, the customer has the option of accepting the lowest bid, any bid or no bid.

Johnson Controls documented the load profile for Saint Clare's four hospitals and five outpatient facilities, conducted the online auction and consulted with Pignato who ultimately made the decision of which suppliers to use. Saint Clare's locked in on the actual production cost of the electricity needed to service its Denville and Dover hospitals, two hospitals that consume enough electricity to make the auction process worthwhile. For natural gas at all facilities, Saint Clare's locked in the charges for getting the gas to the local supplier and the cost of the gas itself. Delivery costs from the local supplier are handled separately.

"The ability to lock in on these costs for the two-year contract alleviates some of the variables we deal with in our budgeting, such as the impact an especially cold winter can have on heating costs. As a result of the reverse energy auction, we know exactly what to expect during the contract term," says Pignato. "By leveraging Johnson Controls expertise in this arena and in the general operations of our facilities, we can focus on our expertise, which is delivering acute care."