ComEd's *Smart Ideas for Your Business*℠

CASE STUDY

ComEd
An Exelon Company

A RETRO-COMMISSIONING PROJECT

PROJECT SNAPSHOT

Company:	**LaSalle Income & Growth Fund III and Jones Lang LaSalle Chicago, Illinois**
Building size:	803,000 square feet
Measures implemented:	Retro-commissioning
Incentive amount:	**$74,713**
Projected annual energy savings:	**755,400 kWh/year**
Projected annual energy cost savings:	**$64,000**
Total project cost:	**$28,300**
Projected payback period:	**Less than six months**
Retro-commissioning provider:	Servidyne
Retro-commissioning:	Nexant Inc.

PROJECT SUMMARY

In 2009, 55 West Monroe in downtown Chicago became one of approximately 20 sites that underwent an expert building analysis by taking advantage of ComEd's ***Smart Ideas***℠ Retro-Commissioning service.

With the help of Servidyne, an approved retro-commissioning service provider that conducted the retro-commissioning analysis, building managers discovered opportunities that significantly reduced energy consumption and increased the comfort of the building's occupants. Cooperation from management and engineering staff of Jones Lang LaSalle, the building's on-site property management company, and ComEd were crucial to the success of the project.

"ComEd's Retro-Commissioning service provided us with the guidance and incentives we needed to conduct a thorough analysis of the energy-using systems at 55 West Monroe. Servidyne did an excellent job of working with building ownership, our vendors and the building's management team," said Ann Montilla, general manager, Jones Lang LaSalle.

Montilla added, "One of the most successful aspects of this project was that Servidyne was willing to share their knowledge with Jones Lang LaSalle's on-site engineering team so that portions of the work could be completed in-house. This helped reduce the overall cost of the project. When we factored in the amount of money saved by reducing the building's energy demands and the incentives received through ComEd's ***Smart Ideas*** program, we expect to recoup these costs in less than a year."

Ty Spearing, managing director of LaSalle Investment Management, Jones Lang LaSalle's investment management business and owner of the property, calls the retro-commissioning project at 55 West Monroe another example of the firm's commitment to energy efficiency, sustainability and environmental consciousness. He also praised members of the ***Smart Ideas*** team for helping to identify the energy efficiency measures that could reduce 55 West Monroe's energy use and save money.

55 West Monroe LLC in downtown Chicago

"ComEd and Servidyne were both excellent partners in this project," Spearing said. "Their efforts were important in enabling 55 West Monroe to maintain one of the lowest operating expense levels among major buildings in the City of Chicago."

THE OPPORTUNITY

The 55 West Monroe building is a multi-tenant office tower situated in the historic Loop section of downtown Chicago. Originally constructed in 1979, the facility accommodates office space in addition to two restaurants and retail space that is accessible to the public. The building's office tower consists of approximately 803,000 square feet on 40 tenant floors with service areas that feature two mechanical equipment floors, a basement and a loading dock. Its exterior wall construction consists largely of

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painted aluminum panels and windows of tinted, insulated glass attached to an aluminum curtain-wall frame system.

The building is an all-electric facility that consumes approximately 13.3 million kilowatt-hours (kWhs) per year. Cooling is provided by two electric centrifugal water-cooled chillers and a six-cell cooling tower, all of which are located in the building's mechanical penthouse. Space heating is provided by a perimeter system that uses electric baseboard heaters.

"With the collaborative effort of our onsite engineering team and Servidyne, we were able to optimize energy efficiency, which reduces our tenant's occupancy costs without compromising their comfort," said Ed Pitzmeyer, chief engineer, Jones Lang LaSalle.

Servidyne, which has a long-standing partnership with Jones Lang LaSalle, recruited 55 West Monroe to participate in ComEd's ***Smart Ideas*** program based on its potential for energy savings and the building management's and building ownership's interest in energy efficiency.

"The 55 West Monroe retro-commissioning project made sense on several levels," said Ryan Stoianowski, LEED AP, senior program manager, ComEd ***Smart Ideas***. "First, the building had gone through many changes over the last 30 years, warranting a re-evaluation of its systems. Second, Jones Lang LaSalle is committed to energy conservation, and finally, Servidyne is proficient in discovering low-cost solutions that meet the requirements of the Retro-Commissioning incentive."

IMPLEMENTATION AND CHANGES

Once the building was accepted into the program, Servidyne performed a retro-commissioning study and found low-cost energy efficiency opportunities through fan optimization, electric heat schedule setback, supply air temperature optimization and chilled water temperature reset.

Following a review process, measures were implemented by the building's engineering staff and their chosen contractors. Following implementation of the identified measures, Servidyne returned to verify installation and confirm actual energy savings.

"Our goal was to understand each of the factors that influence how Jones Lang LaSalle manages the systems at 55 West Monroe," said Barry Abramson, PE, LEED AP, senior vice president, Servidyne. "After listening to the staff and understanding tenant occupancy, we were better able to interpret the results of the retro-commissioning study and suggest measures that would improve their building operations."

RESULTS/PROJECT BENEFITS

The implemented measures provide annual electrical savings of 755,400 kWh, with a monthly peak demand reduction of 26 kW. Analysis at the meter level shows that whole-building energy consumption is down 14 percent compared to the same period last year, even when corrected for weather and occupancy

changes. Savings are even more significant at the air handlers, where meters show energy consumption is down 31 percent. Servidyne and 55 West Monroe credit the implementation of measures discovered through retro-commissioning for the dramatic savings being achieved.

"This project represents a significant opportunity for 55 West Monroe to reduce energy consumption at a relatively low cost," said Brian Lovingood, Servidyne commissioning agent. "The building's engineers and our engineers had skill sets that complemented each other and led to an effective process for uncovering energy benefits for the building."

Now that the retro-commissioning process is complete, the operating team plans to continuously monitor its equipment and systems to maintain energy savings and identify additional energy efficiency improvements.

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>
> – *Brian Lovingood, Servidyne Commissioning Agent*

ABOUT COMED'S *SMART IDEAS* PROGRAM

ComEd's ***Smart Ideas for Your Business***℠ program includes information on incentives, tools and tips to help your organization become more energy efficient. The Retro-Commissioning incentive provides valuable expert building analysis at no cost to customers in exchange for a commitment to implement a group of recommendations from the resulting study. This service also provides facility staff with the opportunity to work directly with experienced retro-commissioning energy engineers to increase their knowledge of the efficient and effective operation of their building's systems.

For more information on ***Smart Ideas*** and retro-commissioning, go to **ComEd.com/BizIncentives** or call the ***Smart Ideas*** hotline at 888-806-2273.

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